Maine State Active Transportation Plan

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Appendix A1: AT Education Programs

Maine State Bicycle/Pedestrian Education Offerings: Overview of Types

Color Key	Numerical Key
G = Regularly Available	1 = Statewide
Y = Less Regularly Available	2 = Local
O = Occasionally	

Program Provider	Adult/Senior Programming	K-12 Programming	Bike Safety Presentations	Ped Safety Presentations	Rodeos	Educational Rides	Mechanical/Self Rescue Trainings	Bicycle Fleet	Electric Bike Training	Off Road Bicycle Ed Training	Low Income, BIPOC, LGTBQ programming	Traffic Calming Demonstration Projects
MaineDOT Supported												
Bicycle Coalition of Maine	1-G	1-G	1-G	1-G	1-G	1-G	1-G	2-O	1-Y	1-G	1-Y	1-G
Heads Up	2-Y	2-Y	2-Y	2-Y		2-O					2-Y	2-Y
Schools												
Schools*		2-G	2-G	2-G	2-G	2-Y	2-Y	2-O		2-Y	2-Y	
Municipalities												
Police/Fire*		2-Y			2-G							
Adult Education Depts*	2-O		2-O			2-O	2-O			2-O		
Recreation Depts*	2-Y	2-Y	2-Y	2-Y	2-Y					2-O		
Libraries*	2-O	2-O	2-O	2-O			2-O				2-O	
Other Municipal Groups*	2-O	2-O			2-O						2-O	2-O
Public Health Entities*	2-O	2-O	2-O	2-O	2-O						2-O	
Tribal Groups*		2-O			2-O						2-O	

Program Provider	Adult/Senior Programming	K-12 Programming	Bike Safety Presentations	Ped Safety Presentations	Rodeos	Educational Rides	Mechanical/Self Rescue Trainings	Bicycle Fleet	Electric Bike Training	Off Road Bicycle Ed Training	Low Income, BIPOC, LGTBQ programming	Traffic Calming Demonstration Projects
Other Non-Profits												
Portland Gear Hub	2-G	2-G	2-G			2-G	2-G				2-G	
Camp Ketcha		2-Y	2-Y			2-Y				2-Y	2-O	
Apex Youth Connection (Community Bike Center)		2-G	2-G			2-G	2-G			2-G		
Nasson Bikes (Community Bike Center)		2-G	2-G									
Bangor Earn a Bike*		2-G	2-G			2-G	2-G				2-O	
CEBE (Center for an Ecology-Based Economy)	2-Y							2-G	2-O			
NEMBA (New England Mt Bike Assoc)	1-Y					1-Y				1-Y		
Rockland Landing Place*		2-O					2-O				2-O	
Teens to Trails		1-Y					1-O			1-O	1-O	
Lincoln "The Warehouse"		2-Y					2-O	2-O			2-O	
Boy Scouts / Girl Scouts		1-O			1-Y	1-Y	1-O			1-O		
Churches*		2-O			2-Y						2-O	
Boys & Girls Clubs*		2-O			2-O	2-O	2-O				2-O	
Neighborhood Associations*		2-O			2-O	2-O						
Maine Outdoor School* (Downeast Bike Bus)		2-Y					2-Y					

Program Provider	Adult/Senior Programming	K-12 Programming	Bike Safety Presentations	Ped Safety Presentations	Rodeos	Educational Rides	Mechanical/Self Rescue Trainings	Bicycle Fleet	Electric Bike Training	Off Road Bicycle Ed Training	Low Income, BIPOC, LGTBQ programming	Traffic Calming Demonstration Projects
For Profit Education												
Youth Cycling Project		2-G				2-G				2-G		
Ride Like a Ninja	1-Y					1-O				1-O	1-O	
Childcare centers*		2-O			2-O	2-O					2-O	
Community Organizations												
Kiwanis			2-O	2-O	2-O							
Rotary			2-O	2-O								
Bike Clubs	2-O		2-O			2-O	2-O			2-O		
*note that the programming provided by this entity includes both BCM-facilitated and independent programming												

Program Category Definitions Table

Adult/Senior Programming:	Bicycle and pedestrian safety education designed for adults and aging adults.
K-12 Programming:	Bicycle and pedestrian safety education designed for young people between kindergarten and twelfth grade; broadly, this is Safe Routes to School programming.
Bicycle Safety Presentations:	30-50 minute presentations on the basics of safe riding, including recommendations to wear a helmet, dress bright and tight, do an ABCQ check, and follow rules of the road as defined in MRS Title 29-A, Chapter 19, §2063. Often bundled with Pedestrian Safety Presentations.
Pedestrian Safety Presentations:	30-50 minute presentations on the basics of safe walking, including recommendations to be alert, be visible, walk safely (use sidewalks if available, walk against if not), and to cross with care. Often bundled with Bicycle Safety Presentations.
Rodeos:	Community events that help children learn about putting the rules of the road into practice. In Maine, these typically include a "continuous flow" traffic course complete with signs and pavement markings that teach kids the basics of how to interact with traffic as they develop riding skills.
Educational Rides:	Coached group rides that teach children or adults basic skills and tactics for safe road and trail riding.
Mechanical/Self Rescue Trainings:	Sessions that teach children and adults basic bicycle maintenance and self-rescue skills e.g., changing flats, adjusting shifting, diagnosing problems needing shop attention, etc.
Bicycle Fleet:	Some schools and other groups providing bicycle education possess fleets of 10-20 bikes that permit people without access to a safe, functional bicycle that can be used on educational rides or rodeos.
Electric Bicycle Training:	Presentations and educational rides addressing some of the unique characteristics of electric-assist bicycles.
Off-Road Bicycle Ed Training:	Clinics that teach riders the techniques and skills needed for safe off-road bicycle riding
Low Income, BIPOC, LGTBQ Programming:	Bicycle and pedestrian safety education designed for children and adults from specific populations with unique needs or wants.
Traffic Calming Demonstration Projects:	Physical installations that include flexible posts, signs, curbing, paint, and other municipal grade materials that can slow traffic, create space for persons walking or bicycling, and increase the visibility of crosswalks. Included as educational interventions because they help teach roadway users to share the road and use available facilities.

Appendix A2: Compendium of Existing Trails

Maine 2022 Existing/Planned Trails and Greenways

*Allowable Users	
A	Non-motorized only, including bicycles, pedestrians, cross-country skiing, and snowshoeing
B	Non-motorized users and snowmobiles
C	Non-motorized users, snowmobiles, and ATVs

Trail Name	Trail Type	Region	Municipality	Extents	Year Opened	Mileage	Surface Treatment	Approx. Width (ft)	Allowable Users
Acadia National Park Carriage Roads	Carriage Roads	Down East	Bar Harbor	Runs through Acadia National Park.	1913-1940	45	Pavement, Gravel	16	A
Androscoggin River Bike & Pedestrian Path	Greenway	Southern Maine	Brunswick	Trail end points: Grover Lane and Water Street		2.6	Pavement	14	A
Androscoggin Riverwalk	Walkway	Southern Maine	Brunswick-Topsham	Located along the Androscoggin River at the border of Topsham and Brunswick		1.3	Pavement		A
Aroostook Valley Trail	Rail-Trail	Northern Maine	Caribou-Mapleton-New Sweden-Presque Isle-Washburn-Woodland	Connects the Towns of Presque Isle, Caribou, Washburn, Woodland, and New Sweden. [Super rugged condition - works for mountain bikes, including mountain bike commuters, but rough for other bike set-ups.]		28	Gravel		C
Auburn Riverwalk	Rail-Trail	Southern Maine	Auburn-Lewiston	Moulton Park at Hutchins St. and High St. to Great Falls Plaza near Turner St. (Auburn) and Simard-Payne Memorial Park at Beech St. and Oxford St. (Lewiston)		1.6	Pavement, Brick, Crushed Stone, Gravel	4	A
Augusta Greenway Trail	Greenway	Southern Maine	Augusta	From the Eastside Boat Landing Park, the Augusta Greenway Trail goes both north to Old Fort Western and south along the river, passing under Memorial Bridge and along the snow dump.		0.9	Gravel, Crushed stone	10	A
Back Cove Trail	Greenway	Southern Maine	Portland	Trail end points: Turkey Bridge/I-295 and Back Cove Park		3.5	Pavement	5+	A
Bangor and Aroostook Trail	Rail-Trail	Northern Maine	Washburn-Caribou-Stockholm	Divided into two sections that link to one another in the Town of Stockholm. The first section of trail travels through the Towns of Mapleton, Washburn, and Stockholm while the second section connects the Towns of Caribou to Stockholm and then continues on to the Town of Van Buren. [Super rugged condition during periods of road grating and rebuilding (maybe annually?). Would work for mountain bikes, including mountain bike commuters, but rough for other bike set-ups.]		61	Gravel		C
Bangor Waterfront Trail	Walkway	Down East	Bangor	Runs through Bangor's Waterfront Park		1	Pavement		A
Bayside Trail	Rail-Trail	Southern Maine	Portland	Runs between Elm St. and Tukey's Bridge	2010	1	Pavement		A

Trail Name	Trail Type	Region	Municipality	Extents	Year Opened	Mileage	Surface Treatment	Approx. Width (ft)	Allowable Users
Belfast Rail Trail	Rail-Trail	Southern Maine	Belfast	Oak Hill Road and Kaler Road/Hills to Sea Trail and Pierce St. at Water St. and Harbor Walk (Belfast)	2016	2.2	Crushed Stone, Gravel		A
Beth Condon Memorial Pathway	Greenway	Southern Maine	Yarmouth	The Beth Condon Memorial Pathway is located in the heart of Yarmouth. The trail stretches about a mile from Portland Street to just east of the Hannaford shopping center. It is also an important off-road segment of the East Coast Greenway and Casco Bay Trail.		1.8	Pavement	10-12	A
Bethel Pathway	Greenway	Western Maine	Bethel	The first section, going from Davis Park to the west, goes past the skate park, over a miniature covered bridge, and out to US Route 2 where there is another parking lot. The pathway then goes over the impressive single span bridge over the Androscoggin, loops back on itself, and continues along the other shore of the river, past the parking lot and water slide of the Big Adventure Center. It currently ends soon after, on the North Road. The second section leaves from Davis Park and goes east, over Alder Stream and then crosses the Intervale Road		1.7	Pavement, Crushed Stone, Gravel		A
Brewer Riverwalk	Walkway	Down East	Brewer	The Brewer Riverwalk hugs the shoreline of the Penobscot River	2013	0.6	Pavement	10	A
Calais Waterfront Walkway	Rail-Trail	Down East	Calais	Todd St. between the St. Croix River and Union St. and Barker St. and South St. (Calais)		1.5	Gravel		A
Down East Sunrise Trail	Rail-Trail	Down East	Ellsworth-Perry	Connects Ellsworth to Calais near Pembroke and forming the northernmost part of the East Coast Greenway	2010	87	Gravel		C
Eastern Promenade Trail	Rail-Trail	Southern Maine	Portland	Sewage Plant Road near I-295/Bayside Trail and Maine State Pier at Franklin St./US 1A and Commercial St. (Portland)		2.1	Pavement		A
Eastern Trail (existing and planned)	Multi-Use	Southern Maine - Down East	Kennebunk-Biddeford-Portland-Scarborough	Warrens Way & SR 35 (Kennebunk) to W. Cole Rd near SR 111 (Biddeford) and Gary L. Maietta Way to Bug Light Park at Madison St (South Portland). *Planned:* In the 2022 MaineDOT Work Plan: Construction of bridge to connect Wainright Field in South Portland and extending south 0.80 of a mile to Pleasant Hill Road in Scarborough.		28.9	Pavement, Crushed Stone, Sand		A
Ellsworth Rail Trail	Rail-Trail	Down East	Ellsworth	North Street and Birch Avenue	2011	1.3	Pavement		A
Fore River Parkway	Rail-Trail	Southern Maine	Portland	The Fore River Parkway Trail links the Portland Transportation Center bus/train station to West Commercial Street.		2.6	Pavement, Gravel		A
Forest City Trail	Walkway	Southern Maine	Portland	Route in Portland comprises 9 trails, school campuses, several parks, an historic cemetery, two waterfalls, and connecting sidewalks.		10	Pavement, Gravel, Dirt		A
Fort Kent Riverside Trail	Rail-Trail	Northern Maine	Fort Kent	The Riverside Trail System is a network of non-motorized trails through downtown Fort Kent, along the Saint John River and Fish River. It begins and ends at intersections with the multi-use Saint John Valley Heritage Trail, and includes the Riverside Park Loop, Riverside Trail West, Riverside Trail South, Riverside Trail North, and the Levee Trail.		3.6	Pavement, Gravel, Dirt, Woodchips, Grass	4-8	A
Four Seasons Adventure Trail	Rail-Trail	Down East	Madawaska	Connects the communities of Newport, Corinna, Dexter, Sangerville and Dover-Foxcroft		29	Gravel		C

Trail Name	Trail Type	Region	Municipality	Extents	Year Opened	Mileage	Surface Treatment	Approx. Width (ft)	Allowable Users
Kennebec River Rail Trail	Rail-Trail	Southern Maine	Augusta-Hallowell-Farmingdale-Gardiner	connects the four communities of Augusta, Hallowell, Farmingdale, and Gardiner.	2010	7	Pavement	10	A
Kennebec Valley Trail	Rail-Trail	Western Maine	Bingham-Solon-Embden	take riders along the edge of the Kennebec River from Embden through Solon to Bingham		8	Gravel		C
Kennebec Valley Trail, Bingham to Madison	Rail-Trail	Western Maine	Bingham	Goodrich Road between Somerset Lane and River Road (Bingham) and Fahi Pond Road just north of US 201A/N. Main St. (North Anson)		14.5	Crushed Stone, Dirt, Sand		C
Lagrange to Medford Trail	Rail-Trail	Down East	Lagrange-Medford	Runs from South Lagrange through Medfor Center to Lake View Plantation		16	Gravel	6	C
Longfellow Mountains Heritage Trail	Rail-Trail								A
Michaud Trail-Millinocket	Greenway	Northern Maine	Millinocket	Trail end points: Congress Street and Congress Street (loop)	2011	1.7	Pavement		A
Mountain Division Trail, Fryeburg Segment	Rail-Trail	Southern Maine	Freyburg	The northern section of the Mountain Division Trail starts about 30 miles away at a trailhead on Portland Street in Fryeburg, and extends to a trailhead near the New Hampshire state line.		4	Pavement	10	B
Mountain Division Trail, Rock Row Section at Westbrook/Portland City Line (Planned)	Rail-Trail	Southern Maine	Westbrook-Portland	Planned as part of the large Rock Row development of an old quarry on the Westbrook/Portland City Line			Pavement		A
Mountain Division Trail, Windham to Standish	Rail-Trail	Southern Maine	Windham-Standish	The southern section of the Mountain Division Trail comprises a segment of the 28-mile Sebago to the Sea Trail that runs between the southern tip of Sebago Lake to Casco Bay in Portland		5.7	Pavement	10	A
Mountain Division Trail, Windham to Westbrook (Planned)	Rail-Trail	Southern Maine	Windham-Westbrook	In the MaineDOT 2022 Workplan - New Construction - PE Only. Beginning at Bridge Street in Westbrook to the Route 202 crossing in Windham. Open for pedestrian traffic while railbed is unused; semi rugged conditions. Municipalities have applied for funding to design and build this section (and actually might have been awarded design funding in the last Transportation Enhancement round before MAP-21 significantly reduced both TE and Safe Routes funds).			Gravel, Crushed stone, Railbed		A
Narrow Gauge Pathway, Carrabassett Valley	Rail-Trail	Western Maine	Carrabasset Valley		2001	6.6	Gravel, Crushed stone		A
Norway Branch Rail Trail	Rail-Trail	Western Maine	Norway	Beal Street and Alpine Street		0.6	Crushed Stone		A
Old Narrow Gauge Volunteer Trail, Randolph	Rail-Trail	Southern Maine	Randolph	Goggins IGA on Water St (Randolph) and near Andres Way	1985	1.3	Ballast, Dirt		A
Old Pond Railway Trail, Hancock	Rail-Trail	Down East	Hancock	The east entrance is located off Point Road, across from Hancock Town Hall (18 Point Road). The west entrance is located off Old Route 1.	2009	2.9	Dirt		A

Trail Name	Trail Type	Region	Municipality	Extents	Year Opened	Mileage	Surface Treatment	Approx. Width (ft)	Allowable Users
Papermill Trail	Rail-Trail	Southern Maine	Lisbon	The Paper Mill trail spans along the Sabattus River		2.1	Pavement		A
Presque Isle Bicycle and Pedestrian Walkway	Rail-Trail	Northern Maine	Presque Isle	Riverside Drive at Bicentennial Park and Green Hill Rd. at N. Main St./US 1 (Presque Isle)	1981	2	Pavement, Gravel		A
River City Trail	Walkway	Down East	Bangor	A bike-ped route through five economic hubs in downtown Bangor, connecting businesses and parks with helpful wayfinding signs.		1.9	Pavement		A
Riverton Rail Trail	Rail-Trail	Southern Maine	Portland	Riverside Drive at Bicentennial Park and Green Hill Rd. at N. Main St./US 1 (Presque Isle)		1.5	Pavement, Dirt, Sand		A
Rotary Centennial Trail	Rail-Trail	Southern Maine	Benton-Winslow	Crummett Street (Benton) and Kennebec River, just west of Dixon Terrace (Winslow)	2005	1.5	Crushed Stone, Dirt, Grass		A
Saint John Valley Heritage Trail	Rail-Trail	Northern Maine	Fort Kent-St Francis	Market St./SR 161 btwn W. Market St. & N. Perley Brook Rd (Fort Kent) and Sunset Dr. south of Main St./SR 161 (Saint Francis)		17	Crushed Stone		C
Sandy River & Rangeley Lakes Railroad Trails	Rail-Trail	Western Maine	Phillips	This trail follows a gravel road through woods into a field for about three quarters of a mile, paralleling the restored railroad bed of the Sandy River and Rangeley Lakes Railroad (SR&RL)	1970	0.8	Gravel, Dirt, Grass		A
Sanford-Springvale Rail Trail	Rail-Trail	Southern Maine	Sanford	Alfred/Sanford town line, about 0.3 miles north of Shaws Ridge Rd & US 202 and Lebanon/-Sanford town line, 1.7 miles south of Hanson Ridge Rd (Sanford)		5.9	Gravel		C
Sherman to Patten Trail	Rail-Trail	Northern Maine	Sherman-Pattern	Potato Row at Station Street (Patten) and North of Sherman		6	Gravel		C
Shore Road Path	Mulit-Use	Southern Maine	Cape Elizabeth	Runs from Cape Elizabeth Town Hall to Fort Williams Park (Cape Elizabeth)		3	Pavement		A
Sipayik Trail (Pleasant Point Reservation)	Rail-Trail	Down East	Pleasant Point	Spans between Perry and Point Pleasant on the Pleasant Point Reservation. The northwestern end of the Sipayik Trail is located along Route 1, just north of S. Meadow Road. The southeastern end of the trail is located at the end of Treatment Plant Road.		1.8	Pavement	8	A
South Portland Greenbelt	Walkway	Southern Maine	Portland	Spans from the Wainwright Athletic complex near the Scarborough town line to the historic Bug Light Park. The Greenbelt Walkway also functions as the eastern terminus of the Eastern Trail.		5.6	Pavement		A
Southern Bangor & Aroostook Trail	Rail-Trail	Northern Maine	Houlton-Monticello-Bridgewater-Mars Hill-Presque Isle	Extends from Houlton through the Towns of Monticello, Bridgewater, Mars Hill, and loops through the southern edge of Presque Isle		37	Gravel		C
Stillwater River Trail	Rail-Trail	Down East	Orono	Bennoch Road and Main St./US 2 (Orono)	2005	2	Dirt, Grass		A
University of Maine Bicycle Path (Orono)	Rail-Trail	Down East	Orono	The path connects the University of Maine campus in Orono to Old Town through the DeMeritt University Forest, along fields, passing nearby the university's research farm.		3.1	Pavement		A
Veazie Rail Trail	Multi-Use	Down East	Bangor-Old Town	Bangor to Old Town	2018	5.5	Gravel		A

Trail Name	Trail Type	Region	Municipality	Extents	Year Opened	Mileage	Surface Treatment	Approx. Width (ft)	Allowable Users
West Side Trail	Multi-Use	Southern Maine	Yarmouth	The West Side Trail is a new multi-use trail addition that brings off-road single track bicycling to Yarmouth. Offering multiple loops within each section, this multi-use walking/running/ biking trail presently stretches from the Cousins Island (Snodgrass) Bridge to U.S. Route One in five sections, all within the CMP power line corridor. The trail will eventually extend the 6 miles (as the crow flies) from the Cousins Island power plant to the North Yarmouth town line, along Yarmouth's western border	1988	8.2	Dirt		A
Whistle Stop Trail	Rail-Trail	Western Maine	Farmington-Jay-Wilton	Connecting Jay, Wilton, and Farmington - Oak St. between Bridge St. and Thomas McClellan Road (Farmington) and Bridge St. and Water St. (Livermore Falls)		15.8	Gravel, Dirt, Sand		C
Winslow Community Trails	Walkway	Southern Maine	Winslow	A new trail was built from Benton Avenue to the Two Cent Bridge, creating a safe pedestrian connection between downtown Winslow across the Kennebec River into Waterville	2010	1.6	Pavement, Gravel	8-10	A
					TOTAL MI	**508.8**			

Appendix B: Public Engagement Summary

Stakeholder Engagement

The MaineDOT *SATP* was developed with significant input from stakeholders representing:

- Age-friendly and disability-rights advocates
- Environmental and smart-growth organizations
- MaineDOT leadership and technical experts
- Metropolitan and Regional Planning Organizations (MPOs and RPOs)
- Organizations supporting people experiencing homelessness
- Pedestrian or bicycle advisory committees
- Public health and safety organizations
- Social justice advocates
- Staff and board members from the Bicycle Coalition of Maine (BCM)
- Trail advocates
- Tribes and Nations

The *SATP* team engaged with the stakeholders listed above at eleven 90-minute meetings attended by 2-8 guest representing the various organizations. Many attended both the discrete stakeholder meetings and the public meetings held throughout the spring. Most also participated in the online survey and/or provided additional feedback to the team through e-mail, social median, or on MaineDOT's PIMA site. Additionally, four follow-up meetings—two remote, one in-person, and one presentation for the Portland Downtown organization—were held with various stakeholders during the *Draft SATP* public comment period in December 2022 to January 2023.

For each meeting—other than with MaineDOT representatives—stakeholder representatives were asked a series of prompting questions to get the discussion started. The questions included:

- How does AT fit into the scope/mission of your group? How does your organization incorporate AT into its work? How might the MaineDOT State AT Plan influence your mission?
- What are barriers to people of all abilities for walking, bicycling or rolling, and what do you think would change that?
- What types of policies, programs and facilities should MaineDOT focus effort and potential funding on?

Recurring themes in these meetings included concerns about speeding traffic, the need for more facilities (especially separated ones), funding challenges, maintenance, and education. Summaries of the feedback from these individual stakeholder meetings, all of which provided important input for developing recommendations and performance measures for the Plan, are included below.

Age Friendly and Disability Rights (April 2022)

Representatives from AARP Maine, Disability Rights Maine, Maine Statewide Independent Living, the state Office of Aging and Disability Services and others discussed a number of issues, including: concerns about maintenance of existing AT facilities, the shortness of ped signal phases, increasing education for drivers as well as vulnerable road users, and the need for more sidewalks, bus stops, and bike lanes.

Environmental and Smart-Growth Organizations (March 2022)

Representatives from the Sierra Club, Natural Resources Council of Maine, Appalachian Mountain Club, Maine's Bureau of Parks and Lands and others discussed a range of topics, including: reducing VMT (e.g., promoting use of e-bikes), improving safe roadway accommodations for AT users, streamlining funding, and increasing education for drivers as well as vulnerable road users such as walkers and bicyclists.

MaineDOT Leadership and Technical Experts (April 2022)

Representatives from MaineDOT at both the operational and management levels discussed a range of topics, including: departmental capacity limitations, efforts to infuse AT planning and considerations at every level of project development, increased use of pilot projects, new partnership programs like the Village Partnership Initiative (VPI) to help foster planning and construction of AT projects feasibility considerations of Complete Street implementation, and fiscal constraints.

MPO/RPO Staff (April 2022)

Representatives from a variety of regional and metropolitan planning organizations including PACTS, BACTS, SMPDC, AVCOG and others discussed a wide range of topics, including: the need for more planning efforts around AT, streamlining and increasing MaineDOT transparency regarding AT funding, insufficient communication between MaineDOT and RPOs, financial barriers to installing shoulders on HCP 3 and 4 lane roadways, tourism as a major driver of economic growth and infrastructure developments, challenges with urban-rural transition and broad concerns about speeding and safety.

Organizations Supporting People Experiencing Homelessness (May 2022)

Representatives from Community Housing for the Homeless in Maine and Milestone Recovery discussed a number of issues, including: the reliance on AT and transit by the homeless community, the need for AT facilities in mixed use contexts (housing and services near each other), and challenges with educating the homeless about safety concerns.

Pedestrian and Bicycle Advisory Committees (May 2022)

BPAC representatives from various regions provided comments on why AT is important to their respective committees. Highlights from this conversation included: crosswalk laws, installing sidewalks on high traffic roads, concerns with speeding, lack of reduced posted speed limits being enforced, moving towards two-way protected bike lanes for safety, enhanced visibility for drivers, and increased education and enforcement. BPACs will likely continue to partner with MaineDOT staff in the future and provide bicycle and pedestrian recommendations on multimodal infrastructure improvements in their respective communities.

Public Health and Safety Organizations (May 2022)

Representatives from Maine Public Health Association, police departments, state Department of Education and others discussed a number of issues, including: the fear of speeding traffic that discourages people from using AT, improving safe roadway accommodations for AT users, concerns about maintenance of existing AT facilities, the presence of AT users on rural roads, and the need for more enforcement and education.

Social Justice Advocates (June 2022)

A representative from the Maine Justice Foundation discussed a number of issues, including: improving/increasing safe roadway accommodations for AT users who may not have a car but need to access services, creating signage that communicates with pictograms rather than just in English, and broadband as providing an alternative to physical transportation.

Staff and Board Members from the Bicycle Coalition of Maine (March 2022)

Representatives from the staff and board of the Bicycle Coalition of Maine discussed a range of topics, including: the fear of speeding traffic that discourages people from using AT, improving safe roadway accommodations for AT users, getting better data from law enforcement, and changing road designs to slow cars.

Trail Advocates (March 2022)

Representatives from a variety of multi-use path management groups, including for the East Coast Greenway, Eastern Trail, Down East Sunrise Trail, as well as from the Maine Bureau of Parks and Lands and the Department of Tourism, the ED of NEMBA, and others discussed a range of topics, including: the need for more investment in in separated facilities such as multi-use paths in rail corridors, more investment in AT generally, the need for mountain bikers to be able to safely access trail heads without having to drive and park, the uncomfortable presence of ATVs on MUPs.

Tribes and Nations in Maine (May 2022)

Representatives from the Houlton Band of Maliseet Indians, the Mi'Kmaq Nation, the Passamaquoddy Tribe at Motahkomikuk (Indian Township), and the Penobscot Nation discussed several active transportation topics, including the lack of shoulders on some rural highways, facilities for bicycles and pedestrians, connectivity to service centers, safer crosswalks and intersections, off-road trails, and the need for improved communication and collaboration with MaineDOT. This supplemented additional input that MaineDOT had received at meetings with the Tribes and Nations that were carried out as a part of the Long-Range Transportation Plan and Family of Plans efforts (see *LRTP Appendix C* for more details).

Public Meetings

Four (4) online public meetings were held by MaineDOT from March to June in 2022 to present the vision, objectives, themes, and receive input and recommendations for the Plan. Residents were able to participate interactively during the live webcast of the meetings and engage in the group chat. A brief summary of the four meetings is below:

- **March 15:** The first meeting included an introduction of the MaineDOT LRTP effort and Family of Plans overview, along with the project managers and consultants for all four of the modal plans (AT, transit, rail, and aviation. The first speaker provided an overview of the Vision and Goals for Maine's transportation system, and an overview of the Outreach efforts involved in the planning effort (meetings, project web page, survey, and social media). After the presentation by MaineDOT staff, two consecutive breakout rooms focused on the *SATP* were offered to participants. In the first round, 77 people joined the *SATP* breakout session with 54 attending the second. Combined, approximately 22 people asked questions, spoke of their desire for enhanced

AT facilities in Maine, and/or expressed concerns about pedestrian and bike access and safety issues.

- **April 6:** The second meeting was held mid-afternoon to provide a daytime option for those not able to attend evening meetings. It began with a slide presentation by one of MaineDOT's co-project managers highlighting the key elements of the LRTP process, including the policy and program focus of the *SATP*. Following the presentation, participants were again encouraged to attend one of the breakout rooms established for each of the modal plans. Thirty-four participants joined the *SATP* breakout room with 18 providing verbal comments to the team. Others provided comments via chat.

Statewide Active Transportation Plan

presented to

Public Meeting #2

presented by

Jim Tasse, Bicycle Coalition of Maine

Martin Rooney, MaineDOT

April 6, 2022

Screen shot from the April 6 virtual Public Meeting

- **May 4:** The third meeting began with a slide presentation by the consultant team highlighting the work on the *SATP*, to-date. The focus was a summary of the public engagement work, with an emphasis on what had been learned from the over one thousand responses to the *SATP* survey (ultimately to become 1667 responses). Framing the *SATP* presentation were responses to the overarching questions related to "Where are we now?", "Where do we want to go?", and "How do we get there?". After the slides, 30 participants joined the *SATP* breakout room to ask clarification questions related to the data presented in the slides and provide comments on potential recommendations for AT programs, policies, and infrastructure projects. Twelve attendees spoke to the group with 5 others providing comments via chat.
- **June 7:** The final public meeting was setup as a panel discussion. After a brief presentation on the LRTP and Family of Plans work to-date, a series of questions were asked of the panel comprised of MaineDOT staff and consultant team members from each modal plan. Roughly 20 questions (coming from 40 participants) related to all modes of transportation and impacted regions throughout the state were answered by the panelists.

Online Input

Public Involvement Management Application (PIMA)

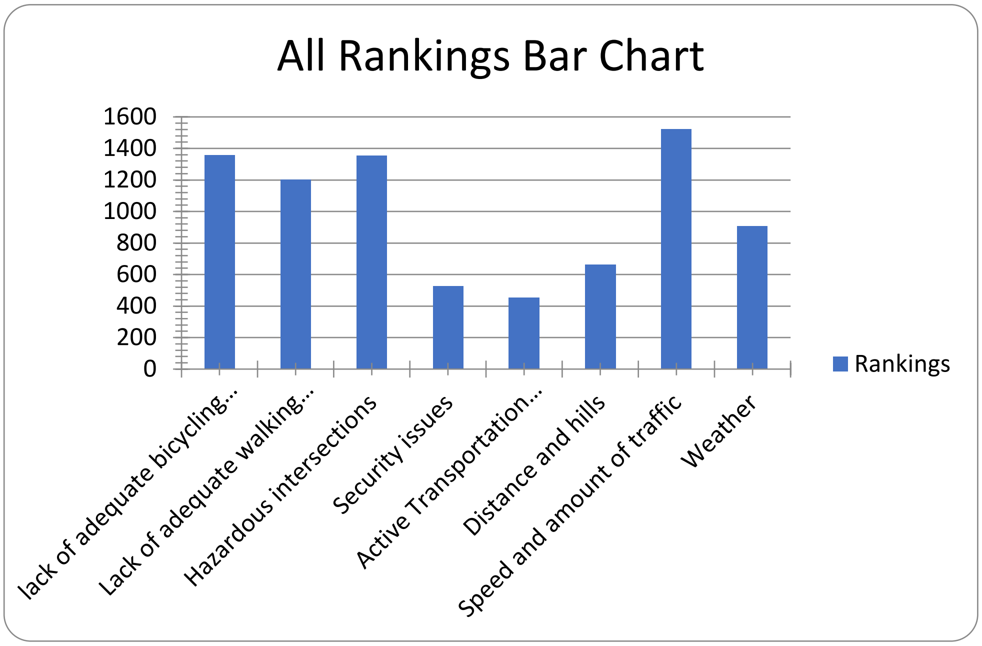
As part of the State of Maine's Family of Plans developed throughout 2021-22, MaineDOT established a PIMA site. The site provided the opportunity for the public to submit written comments to MaineDOT regarding any of the four plans, including the *SATP*. The 400+ comments can be found in Appendix C of the Long Range Transportation Plan, which can be found at: https://uploads.mainedotpima.com/6889e5b4-8419-405d-9b0a-f507fe4dc5e3.pdf

Additionally, many individuals and organizations bypassed the PIMA site and provided comments directly to MaineDOT via email.

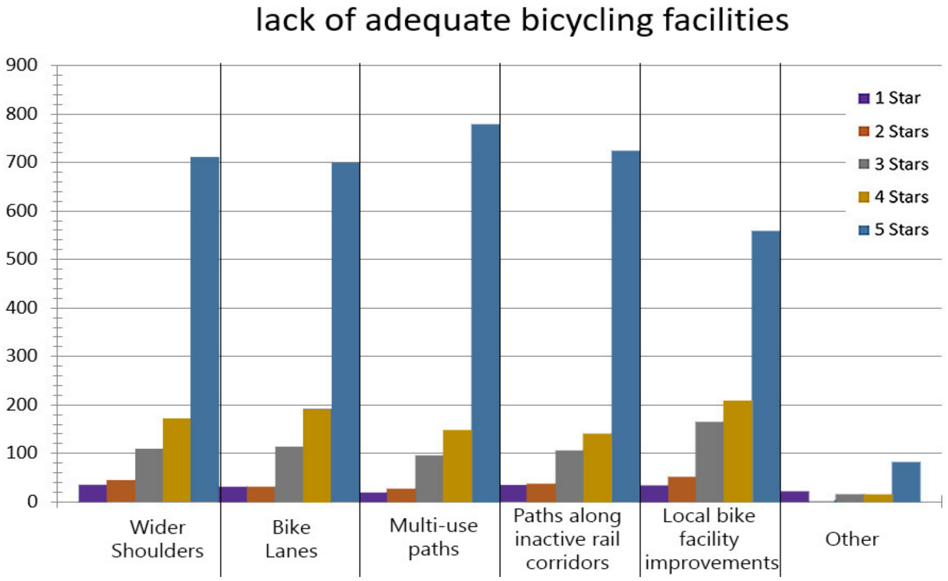
Active Transportation Plan Survey

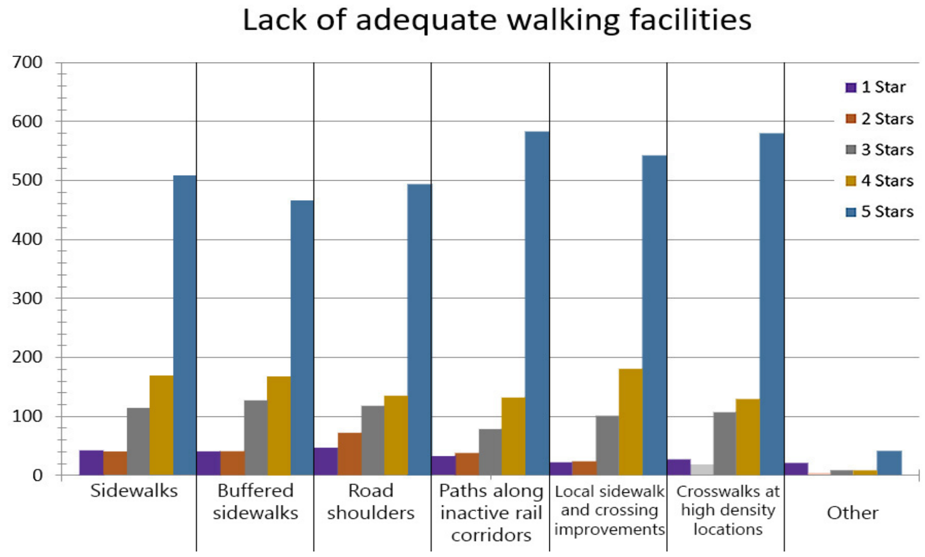
From April 1 to May 16, 2022 the public was invited to respond to the Active Transportation Plan survey. Responses were received from 1667 participants. A summary of the responses is below.

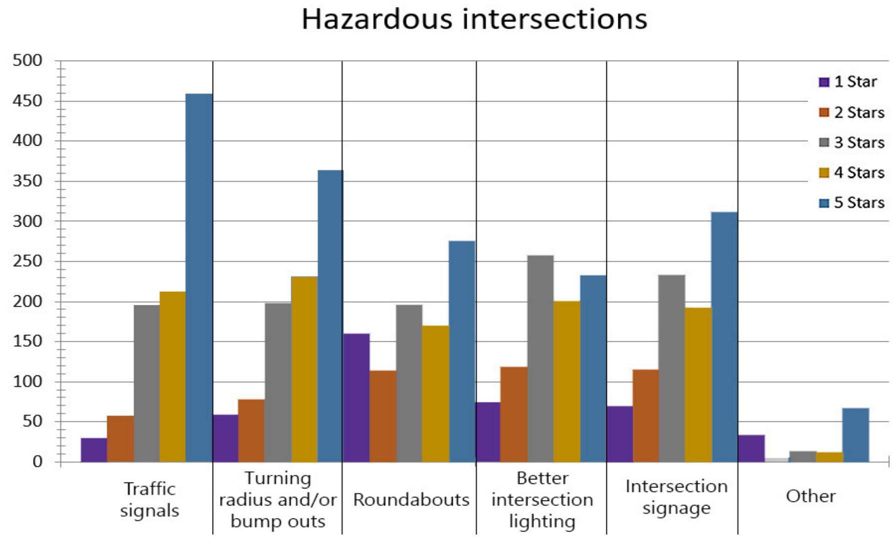
What are the primary barriers to Active Transportation in Maine?

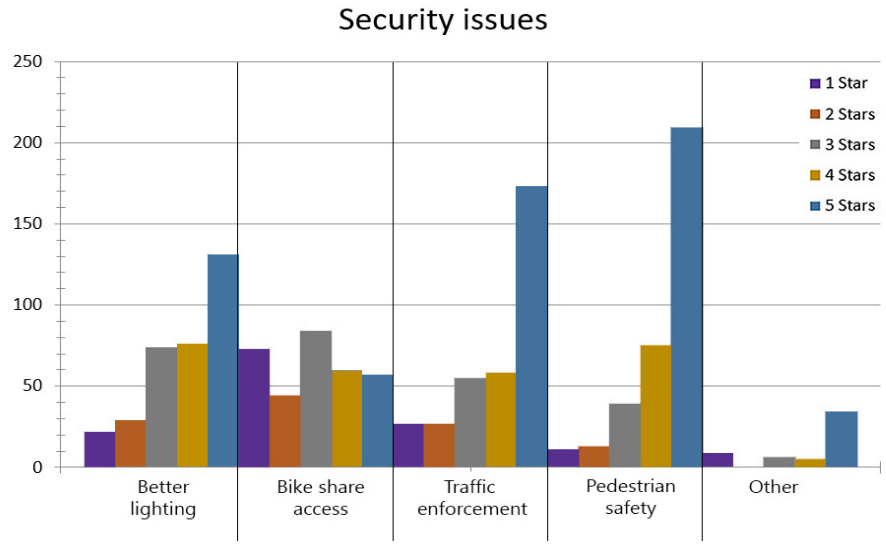


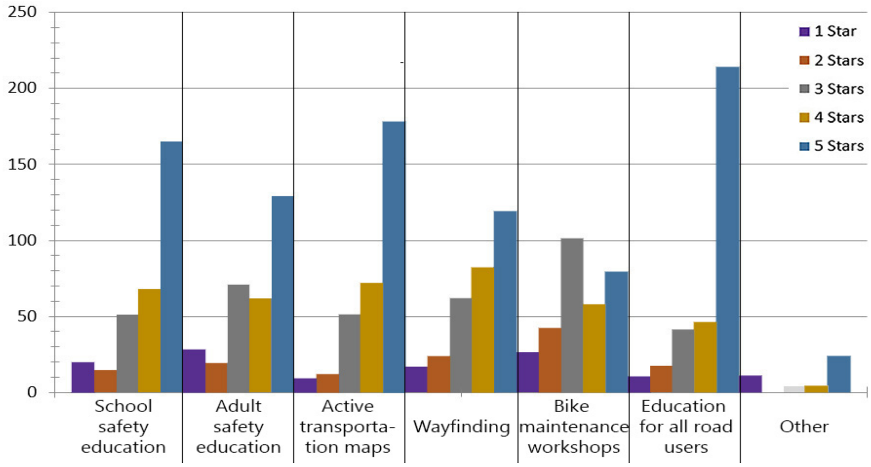
For each of the barriers listed above, what is the likelihood that each mitigation strategy would encourage you to use active transportation as part of your regular routine (1 star = unlikely, 2 stars = somewhat likely, 3 stars = potentially, 4 stars = likely, 5 stars = very likely)?

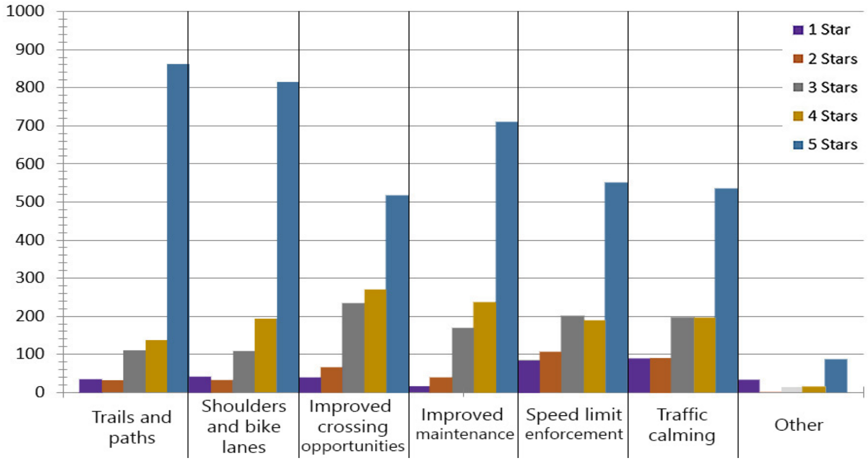


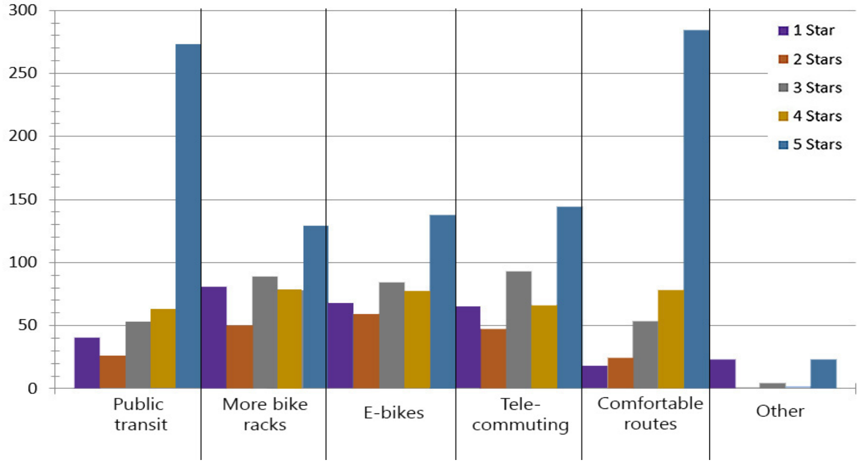

Lack of adequate walking facilities
700
600
500
400
300
200
100
0
1 Star
2 Stars
3 Stars
4 Stars
5 Stars
Sidewalks
Buffered sidewalks
Road shoulders
Paths along inactive rail corridors
Local sidewalk and crossing improvements
Crosswalks at high density locations
Other


Hazardous intersections
500
450
400
350
300
250
200
150
100
50
0
1 Star
2 Stars
3 Stars
4 Stars
5 Stars
Traffic signals
Turning radius and/or bump outs
Roundabouts
Better intersection lighting
Intersection signage
Other

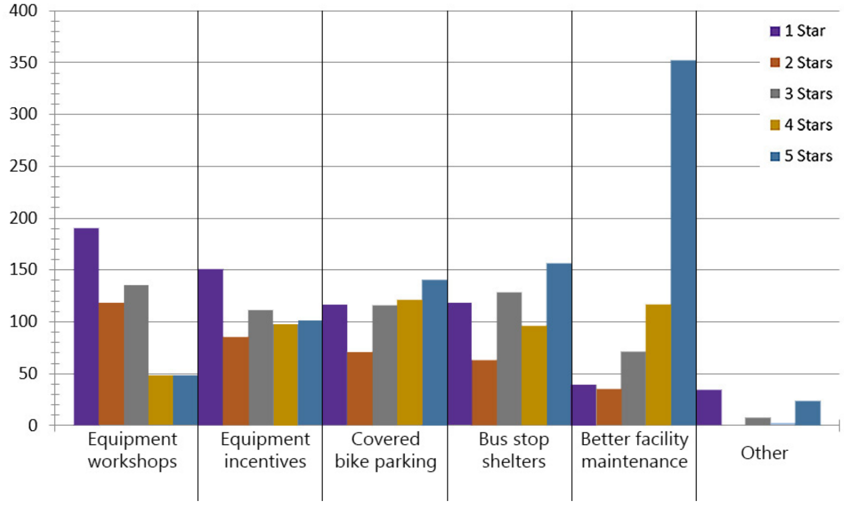

Security issues
250
200
150
100
50
0
1 Star
2 Stars
3 Stars
4 Stars
5 Stars
Better lighting
Bike share access
Traffic enforcement
Pedestrian safety
Other


Active Transportation Education

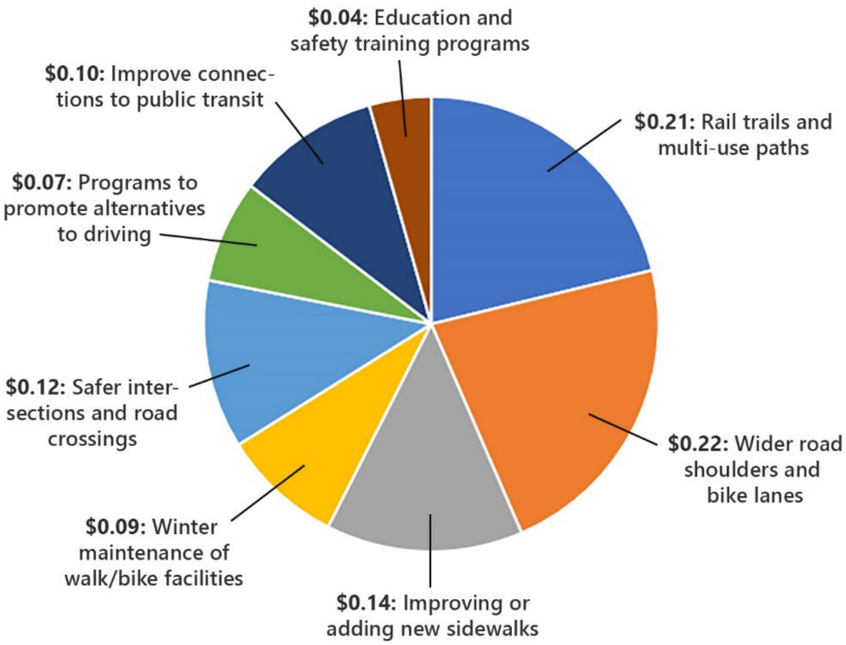

Speed and amount of traffic


Distance and hills

Weather



Investment Priorities: Based on the potential solutions to the barriers to active transportation in Maine, please tell us how you would distribute $1.00?



Appendix C: State-owned Inactive Rail Corridor Existing Conditions and Cost Estimates

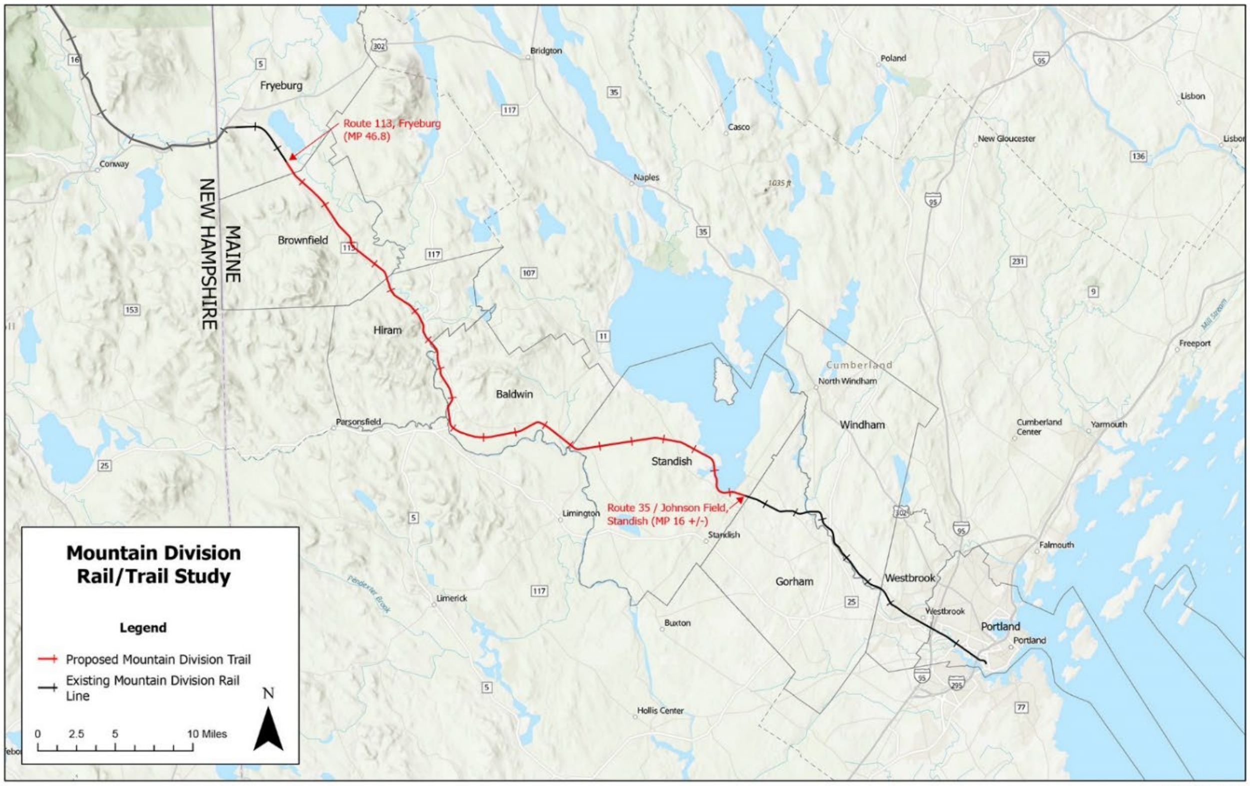
Mountain Division Corridor

View of the Mountain Division Trail in Fryeburg (Google)

While the full extent of the Mountain Division Line runs from Portland through New Hampshire to St. Johnsbury Vermont, the segment under study is a roughly 31-mile segment between Route 35 in Standish to Route 113 in Fryeburg (MP 16 to MP 46.8). The corridor runs through the towns of Baldwin, Hiram, and Brownfield prior to entering Fryeburg. The multi-use Mountain Division Trail lies adjacent to the rail line in Fryeburg from Route 113 to just short of the New Hampshire border. South of the rail corridor study area, the trail runs from Route 35 in Standish to Route 202 in South Windham. The latter is part of the Sebago to the Sea Trail which may ultimately provide a shared use path connection to Portland.

Additional information about the Mountain Division Corridor can be found in HNTB's *Mountain Division Feasibility Study: Potential Uses and Economic Benefits* developed for the Mountain Division RUAC, dated May 2022.

Figure 2 **Context Map of Mountain Division Corridor (from May 2022 Mountain Division Feasibility Study)**



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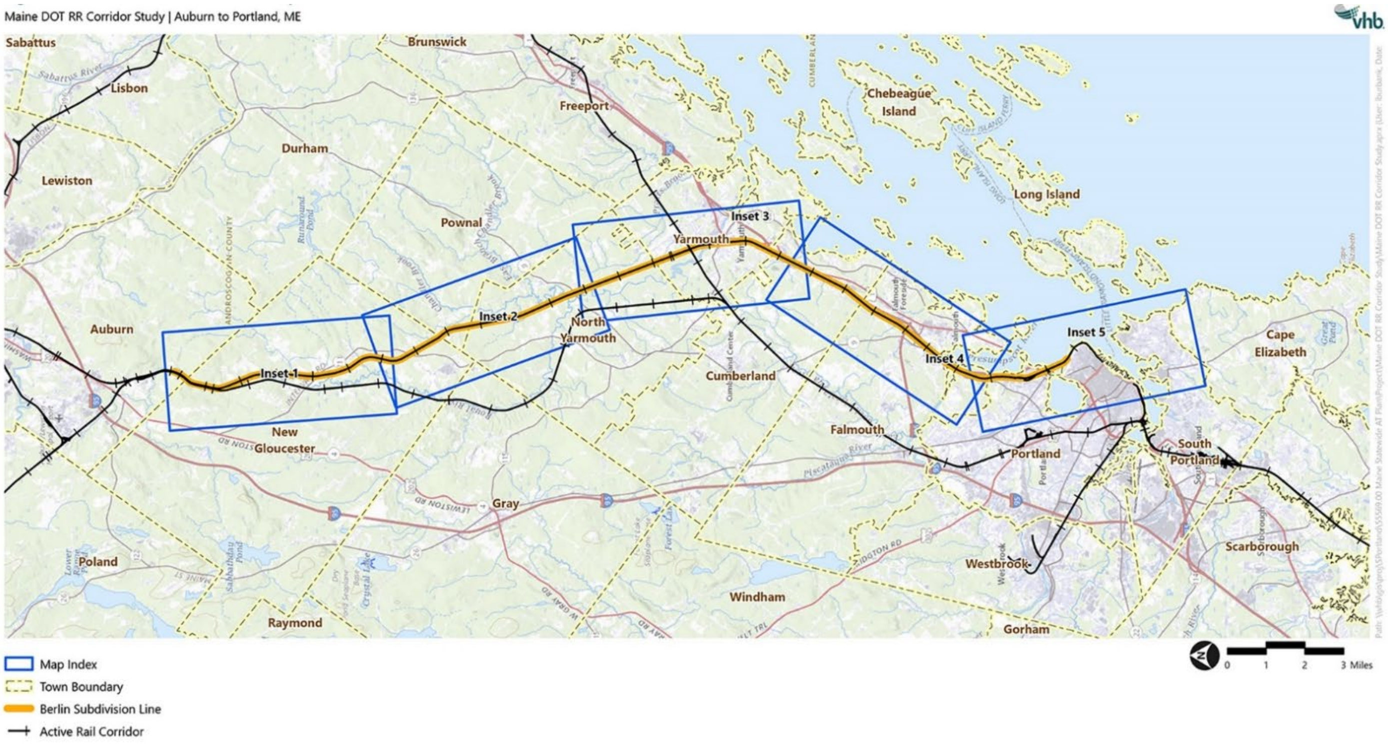
Berlin Subdivision Corridor

The Berlin Subdivision corridor, also called the St. Lawrence & Atlantic/Berlin Subdivision corridor, runs 26.5 miles from Portland to Auburn, passing through Falmouth, Yarmouth, North Yarmouth, Pownal, and New Gloucester. Combined, the corridor towns' population is nearly 90,000 residents. The corridor begins at MP 0.0 on the Peninsula, includes the defunct swing bridge to the East Deering neighborhood and extends to MP 26.48 in Auburn. The south half of the alignment runs through an urbanized mix of industrial and residential areas in Portland, Falmouth, and Yarmouth while the northern half of the rail corridor runs through rural areas, frequently adjacent to farmland.

Per MaineDOT GIS data, the ROW width varies from 96-126 feet, though typically is 99 feet. The corridor crosses 19 public roads, 12 of which include RR flashing light signal. There are 23 additional crossings at private and/or farm roads where cross traffic volumes and speeds are much lower and less of a concern for an interim trail use in the future. Fifteen extant bridges help the former rail line cross rivers, streams, and roadways and vary in length from only 26 feet to 1,600 feet. The alignment crosses a handful of environmentally sensitive areas, including:

- **Falmouth:** endangered or threatened species habitat area near the Presumpscot River
- **Yarmouth/N. Yarmouth:** National Wetlands Inventory (NWI) wetland near the town line
- **N. Yarmouth, Pownal and New Gloucester:** NWI wetlands, conservation easements, stream crossing, and endangered or threatened species habitat area

Figure 3 Context Map of Berlin Subdivision Corridor (Inset maps can be found in the Appendix)



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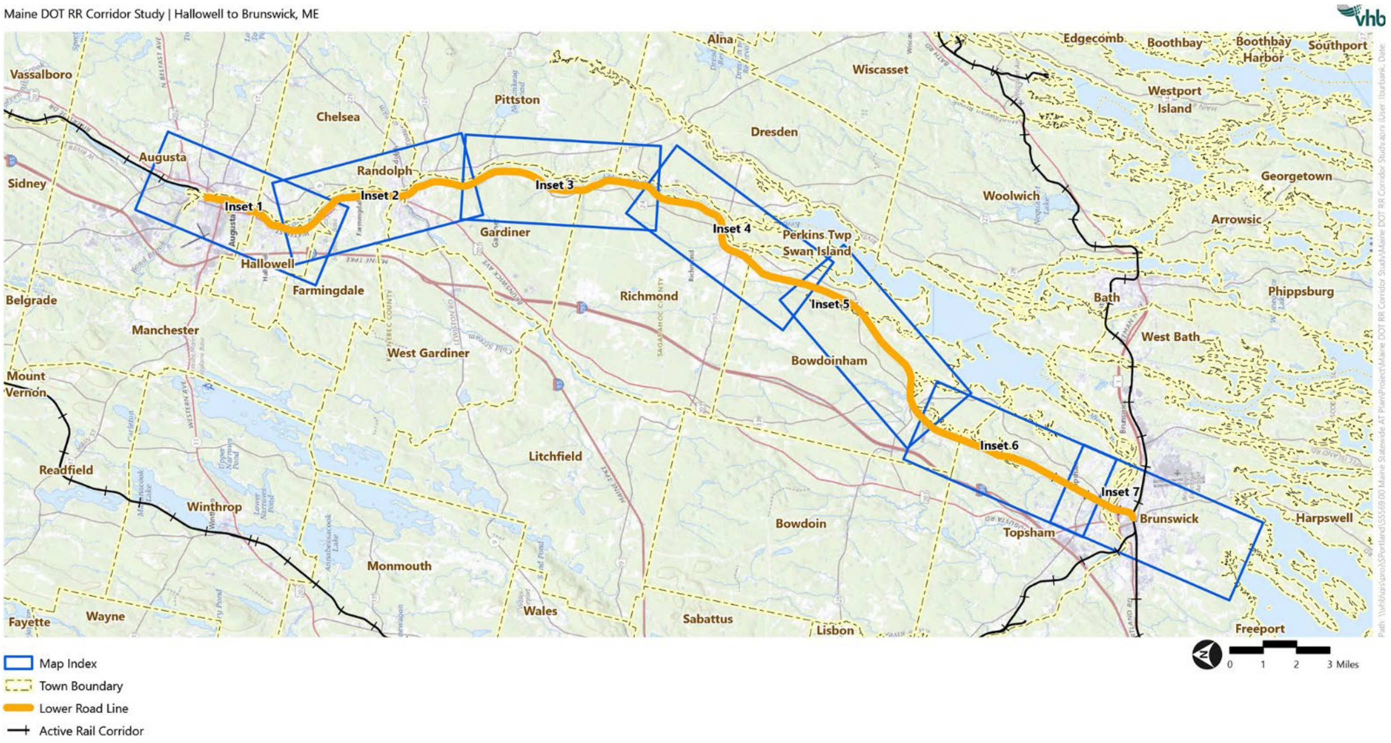
Lower Road Corridor

The Lower Road corridor runs roughly 26 miles from Brunswick to Gardiner, passing through Topsham, Bowdoinham and Richmond, an area with a combined population of roughly 40,000 residents. The rail corridor begins at MP 30.22 adjacent to the Jordan Avenue bridge in Brunswick and extends to MP 56.08 in Gardiner. The alignment runs through a rural area north of Brunswick until Richmond. From Richmond Village Center, the rail corridor parallels the Kennebec River, occasionally passing through residential areas but otherwise sandwiched between the river and Route 24—the interim route for the Merrymeeting Trail for which the Lower Road corridor has been branded by trail advocates—until reaching the Hannaford's Plaza in Gardiner. To the north, most of the inactive rail corridor now includes the Kennebec River Trail (principally a RWT).

Per MaineDOT GIS data, the ROW width varies from 66-99 feet, with some areas widening to 110 feet. The corridor crosses 21 public roads: 8 with minimal treatment and 13 with flashing warning beacons (two of which feature crossing arms as well). There are 14 additional crossings at private and/or farm roads where cross traffic volumes and speeds are much lower and less of a concern for an interim trail use. Sixteen extant bridges help the former rail line cross rivers and streams. The corridor crosses through two environmentally sensitive areas, including:

- **Topsham:** NWI wetlands in the area adjacent to the multiple stream crossings between Head of the Tide Park and the Kennebec River
- **Richmond:** NWI wetlands in the State Wildlife Management Area adjacent to the Kennebec

Figure 4 Context Map of the Lower Road Corridor (Inset maps can be found in the Appendix)



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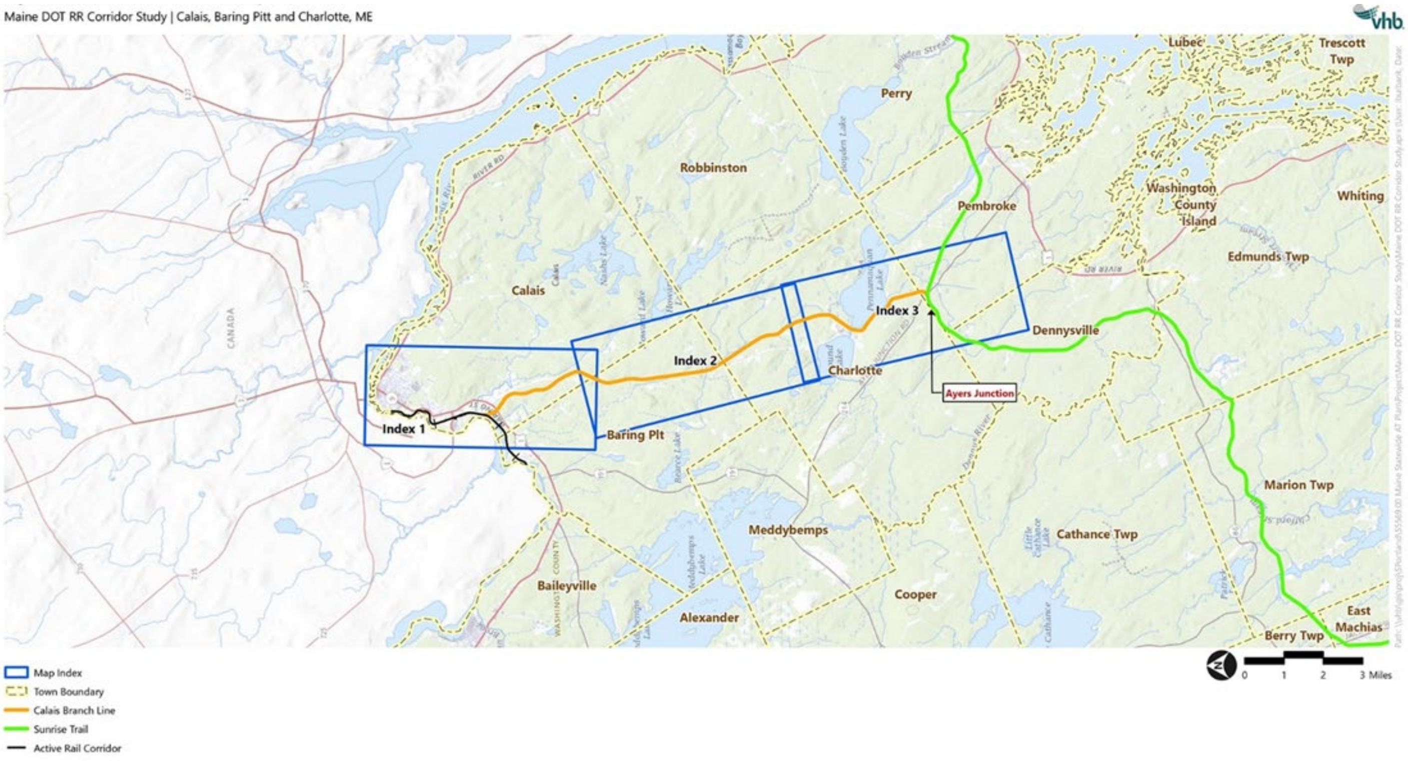
Calais Branch

The Calais Branch corridor runs nearly 13 miles from the intersection with the Down East Sunrise trail in Pembroke, through Charlotte and Baring Pit to Calais. The north termination is just north of Route 1 where the inactive state-owned rail corridor intersects with the active rail line that parallels the US/Canada border, The corridor runs through an undeveloped area between woods and wetlands, featuring a number of environmentally sensitive zones, including:

- NWI wetlands in the area between Round Lake and Pennamaquan Lake
- NWI wetlands and the National Wildlife Refuge on both side of Moosehorn Brook for the majority of the corridor
- A wellhead protection area near Headquarters Road in Baring Pit

Per MaineDOT GIS data, the ROW width is 66 feet, but narrows to 50 feet in some areas. The corridor crosses 7 public roads, all of which have had the rails removed and are typically unmarked with signs or beacons. Four extant bridges help the former rail line cross Moosehorn Brook and the creek that connect Round Lake and Pennamaquan Lake. From that bridge location (MP 256.57) to the north terminus near Route 1, the Calais Branch corridor closely parallels U.S. Bike Route 1, the on-road temporary designation for the East Coast Greenway.

Figure 5 Context Map of the Calais Branch (Inset maps can be found in the Appendix)



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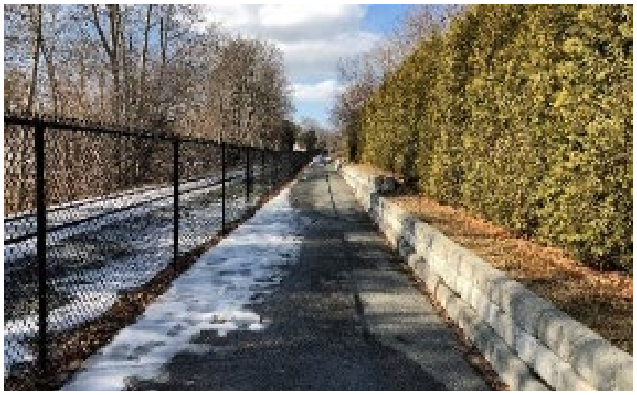
Cost Estimate Assumptions: Rail-with-Trail Alternatives



Example Rail-with-Trail configuration (with 10'-6" offset and fence) in Ellsworth

- Construction of a trail adjacent to the existing rail line incorporating a minimum 15' offset[1] from edge of trail to the nearest rail location, consistent with MaineDOT guidelines (see photo at right).
- Retaining walls and other engineered elements will allow future rail-with-trail design to stay within the state-owned railroad ROW.[2]
- Estimated costs for undergrade bridge (i.e., bridge that carries the rail tracks) improvements generally include construction of new adjacent superstructures that carry the new trail. Based on the configuration of the existing bridges, the new superstructures can be supported by existing structure or supported on new substructure.[3]
- Estimated costs for overhead bridges (i.e., bridges that carry roadways over the rail tracks) include constructing a new bridge that is wide enough to allow rail and trail where the existing bridge clearance is insufficient.
- Although not included in the cost estimates for the *SATP* corridors, a more-detailed feasibility study would assess opportunities for the trail to run off-corridor and use nearby, parallel road corridors to accommodate pedestrians and bicyclists (providing a potentially significant cost savings).
- Estimated costs also do not include any potential parking facilities, information kiosks, or other elements associated with formal trailheads (both alternatives).

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[1] Represents MaineDOT's standard recommended offset from existing rail lines. In constrained conditions, a reduced 10'-6" offset is permitted with the provision of a 6' tall security fence. Any subsequent feasibility study and/or design project would need to determine if the reduced offset would be appropriate. This may have an impact on the anticipated cost estimate.

[2] Any survey or verification of railroad ROW is not included within the *SATP* Scope of Work. This assumption should be confirmed in subsequent design phases of a future project.

[3] In this context, "superstructure" refers to structural members of the bridge that sit above the supports, e.g., girders and trusses, and "substructure" refers to the piers and abutments that hold up the superstructure.

Cost Estimate Assumptions: Trail-until-Rail Alternatives

- Replacement of existing rail line with a trail (see photo at right).
- Estimated costs for the trail construction include removal of the existing track, surfacing and regrading of the existing ballast, and placement of either stone dust/gravel or pavement.
- Estimated costs for the undergrade bridge improvements generally include construction of a new timber trail surface and timber bridge rails.

Example Trail-until-Rail configuration (Down East Sunrise Trail)

Table A Inactive, State-owned Rail Corridor Prioritization Table (with Equally Weighted Criteria)

Scores for each criterion are ranked from one (lowest) to three (highest).

Total Score Categories		
High Scoring	27 - 30	🟩
High / Mid-level Scoring	23 - 26	🟩
Mid-level Scoring	18 - 22	🟨
Mid-level / Lower Scoring	14 - 17	🟧
Lower Scoring	10 - 13	🟥

Criteria		**Mountain Division Line (31 miles)**		**Berlin Subdivision (25 miles)**		**Lower Road Corridor (27 miles)**		**Calais Branch (13 miles)**	
		RWT	TUR	RWT	TUR	RWT	TUR	RWT	TUR
SATP Goals	Access to jobs, education, business, recreation, and other destinations	2	2	3	3	3	3	2	2
	Serves first-/last-mile connections to other transportation modes	1	1	3	3	3	3	1	1
	Is accessible to all Mainers and visitors	2	2	2	2	2	2	2	2
	Can serve as part of an integrated, safe and connected system (i.e. connects to other trails)	3	3	3	3	3	3	2	2
Other Criteria	Size of surrounding population	2	2	3	3	2	2	1	1
	Trip Estimates (Total)	3	3	3	3	2	2	1	1
	Can promote outdoor recreation and tourism	3	3	3	3	3	3	3	3
	Constructability	1	2	1	2	1	2	1	3
	Scenic Qualities	3	3	2	2	2	2	3	3
	Cost	1	2	1	2	1	2	1	2
TOTAL (Min: 10, Max: 30)		21	23	24	26	22	24	17	20

Table B Inactive, State-owned Rail Corridor Prioritization Table (with Weighted Criteria)

Scores for each criterion are ranked from one (lowest) to three (highest). Weighting for each criterion is from 1 to 3.

Total Score Categories		
High Scoring	27 - 30	🟩
High / Mid-level Scoring	23 - 26	🟩
Mid-level Scoring	18 - 22	🟨
Mid-level / Lower Scoring	14 - 17	🟧
Lower Scoring	10 - 13	🟥

Criteria		**Weighting**	**Mountain Division Line (31 miles)**		**Berlin Subdivision (25 miles)**		**Lower Road Corridor (27 miles)**		**Calais Branch (13 miles)**	
			RWT	TUR	RWT	TUR	RWT	TUR	RWT	TUR
SATP Goals	Access to jobs, education, business, recreation, and other destinations	3	2	2	3	3	3	3	2	2
	Serves first-/last-mile connections to other transportation modes	2	1	1	3	3	3	3	1	1
	Is accessible to all Mainers and visitors	1	2	2	2	2	2	2	2	2
	Can serve as part of an integrated, safe and connected system (i.e. connects to other trails)	2	3	3	3	3	3	3	2	2
Other Criteria	Size of surrounding population	3	2	2	3	3	2	2	1	1
	Trip Estimates (Total)	3	3	3	3	3	2	2	1	1
	Can promote outdoor recreation and tourism	1	3	3	3	3	3	3	3	3
	Constructability	2	1	2	1	2	1	2	1	3
	Scenic Qualities	1	3	3	2	2	2	2	3	3
	Cost	2	1	2	1	2	1	2	1	2
TOTAL (Min: 20, Max: 60)			41	45	50	54	44	48	30	36

Appendix D: HCP 3-4 Evaluation Criteria and Detailed Methodology

Scoring Thresholds for ROUND 1 Criteria[4]

1. **Traffic Volumes***
   - Description: Roadways that carry more traffic typically have more opportunities for conflicts, thus wider shoulders could provide more benefit. The higher the score in this category, the higher the amount of traffic present along the roadway or at the location being considered.
   - Scoring
     - 1 = 0 – 3,000 Average Daily Traffic (ADT)
     - 3 = >3,000 – 6,000 ADT
     - 5 = >6,000 ADT
2. **Vehicle speeds***
   - Description: Using roadway posted speeds, determine if the roadway has high vehicle speeds. The higher the speed, the higher the priority to widen roadway shoulders for safer travel for pedestrians and bicyclists
   - Scoring
     - 1 = ≤30 MPH
     - 3 = 35 MPH – 50 MPH
     - 5 = 55 MPH or more
3. **Number of Travel Lanes**
   - Description: Wider, multi-lane roadways can create a more uncomfortable environment for people who need to use the shoulder to walk, bike, or use a mobility device. The higher number of travel lanes, the higher the need for wider shoulders.
   - Scoring
     - 1 = Exclusively two-lane roads (average for all segments: <2.1)
     - 3 = Primarily two-lane roads with intermittent turn lanes and some 4-lane sections (average for all segments: 2.1-2.8)
     - 5 = Primarily three- and four-lane roads (average for all segments: >2.8)
4. **Pedestrian/Bicycle Crash History* - within 50-ft**
   - Description: Does the HCP 3 or 4 roadway corridor have known safety concerns or have crashes involving AT users (from 2012-2021) been reported there? Is there a known high crash cluster within the corridor or at intersections? The higher the score, the greater the need for shoulder widening improvements.
   - Scoring
     - 1 = <0.5 pedestrian/bicycle crashes per mile (per 2012-2021 total)
     - 2 = 0.5-1.0 pedestrian/bicycle crashes per mile (per 2012-2021 total)
     - 3 = >1.0-1.5 pedestrian/bicycle crashes per mile and/or one fatality anywhere along the corridor, no matter the number of crashes (per 2012-2021 total)
     - 4 = >1.5-3.0 pedestrian/bicycle crashes per mile and/or one fatality anywhere along the corridor (per 2012-2021 total)

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[4] Any criterion with an * indicates the need to average road segment data per mile in order to provide a score for a single road corridor

    - 5 = >3.0 crashes per mile and/or >1 fatality anywhere along the corridor (per 2012-2021 total)

5. **Residential Density within ½ Mile of the Corridor***
    - Description: Does the density of homes in the ½ mile buffer area contain a high number of trip origins and destinations? Higher scores are given to road corridors that lie next to well-settled residential neighborhoods and areas with multi-unit apartment buildings.
    - Scoring. In general, the corridor runs through a:
        - 1 = Low-density rural area with intermittent homes (<1,000 dwelling units per linear mile)
        - 3 = Suburban area or Village with primarily detached houses (1,000 – 5,000 dwelling units per linear mile)
        - 5 = Urbanized area or town center with medium-to-high density housing (>5,000 dwelling units per linear mile)

6. **Proximity to AT Destinations (Schools, Colleges/Universities, State Parks, and Beaches)**
    - Description Does the roadway corridor lie within a ¼ mile of public or private schools, or ½ mile of a college campus, state park, state beach, or other major destination? Corridors in close proximity to schools and other destinations will receive the highest scores.
    - Scoring
        - 1 = No schools within ¼ mile or AT destinations within ½ mile
        - 2 = 1 school within ¼ mile or 1-2 AT destination within ½ mile
        - 3 = 1 school within ¼ mile and 2 AT destination within ½ mile OR 2 schools within ¼ mile and no AT destination within ½ mile
        - 4 = 1 school within ¼ mile and >2 AT destination within ½ mile OR 2 schools within ¼ mile and 1-2 AT destination within ½ mile
        - 5 = >2 schools within ¼ mile (with or without other AT destinations)

7. **Proximity to Environmental Justice Communities**
    - Description Do portions of the roadway corridor run through a formally designated Environmental Justice (EJ) population?
    - Scoring
        - 1 = <25% of highway corridor sits within EJ community
        - 3 = 25-75% of highway corridor sits within EJ community
        - 5 = >75% of highway corridor sits within EJ community

8. **Connectivity to Existing Trails and Greenways**
    - Description: Is the road corridor a designated bike route or does it provide connectivity to other AT facilities such as multi-use trails and greenways? Making these connections reduces potentially hazardous gaps between facilities and elevates the “network effort”. Corridors that provide the most connections receive the highest scores.
    - Scoring
        - 1 = No multi-use trails or greenways within ½ mile of road corridor
        - 2 = One multi-use trail or greenway within ½ mile of road corridor

    - 3 = More than one multi-use trail or greenway within ½ mile of road corridor OR intersects with at least one multi-use trail or greenway
    - 4 = Road corridor is part of the East Coast Greenway (ECG) or U.S. Bike Route (USBR)
    - 5 = Road corridor is part of the ECG or USBR AND intersects with at least one multi-use trail or greenway

Scoring Thresholds for ROUND 2 Criteria

9. **Filling in short gap in long corridor (qualitative)**
    - Description: Would widening shoulders help to eliminate a short gap along a roadway which features shoulders that are currently ≥5 feet wide along its primary length. The goal is to provide a long stretch of roadway with wide shoulders for the relatively minimal cost of improving shoulders along a discrete segment or two.
    - Scoring
        - 1 = Less than 75% of the corridor length currently features a ≥5 ft wide shoulder
        - 3 = 75%-90% of the corridor length currently features a ≥5 ft wide shoulder
        - 5 = >90% of the corridor length currently features a ≥5 ft wide shoulder

10. **Engineering Challenges and/or Permitting Issues (qualitative)**
    - Description: Would widening of the roadway shoulders create significant engineering and/or right of way challenges, require environmental permitting, and/or lead to conflicts with utilities? Any of these would require additional funding, environmental permitting/mitigation, and/or potentially lengthy negotiations with property owners and utility companies.
    - Scoring
        - 1 = Highly likely complex engineering challenges and/or permitting required for implementation
        - 3 = Potential engineering challenges and/or permitting required
        - 5 = No engineering challenges or permitting issues anticipated

11. **Community Input (qualitative)**
    - Description: Corridors for which some level of community support was expressed during the *SATP* process—e.g., at public or stakeholder meetings, via the survey, and/or the PIMA site) and/or for which ped/bike advocates have shown enthusiasm in the past receive the highest number of points.
    - Scoring
        - 1 = No explicit community support expressed during the *SATP* process
        - 3 = Some community support expressed during the *SATP* process
        - 5 = Strong community support expressed during the *SATP* process and/or a history of advocacy for improvements along the corridor

HCP 3-4 Detailed Corridor Evaluation Methodology

Order of Operations

- Gather Data Resources
- HCP 3 and 4 Road Segment Schema Customization
- Data resources customization
- Populate HCP 3 and 4 Road Segment Fields
- MaineDOT HCP Road Prioritization Geoprocessing Tools

Data Resources

HCP 3 and 4 Road Segments:

- https://gis.maine.gov/arcgis/rest/services/dot/MaineDOT_OpenData/MapServer/52
- Query is needed on this layer before exporting to local GDB for customization
- Query: priority includes 3 and 4

Bike and Ped Crashes:

- https://gis.maine.gov/arcgis/rest/services/dot/MaineDOT_OpenData_Crashes/MapServer/2
- Query is required for the fatal crashes, see below.
- ***Fatals Query: ped_bike_k > 0***

Residential Density:

- Table: H1 from the 2020 Decennial Census at the block level.
- Polygons: 2020 census block geometry

Schools:

- https://services1.arcgis.com/RbMX0mRVOFNTdLzd/ArcGIS/rest/services/Maine_GeoLibrary_Structure/FeatureServer/8

AT Destinations:

- State Parks: https://gis.maine.gov/arcgis/rest/services/acf/Conserved_Lands/MapServer/0
    - Query is required for the fatal crashes, see below.
    - ***Query: Designation = State Park***
- Sand Beaches:
    - https://services1.arcgis.com/RbMX0mRVOFNTdLzd/ArcGIS/rest/services/MGS_Beaches_and_Dunes/FeatureServer/0
- Trails:

Environmental Justice:

All three tables are from the 2016-2020 5-Year American Community Survey.

Census tables: B19013, C16002, and B03002 for all Census Block Groups in Maine, and then Polygons: 2020 Census Block Group geometry.

HCP 3 and 4 Road Segment Schema Customization

*Field italicized indicate fields that were not a part of the original road dataset and created specifically for the corridor analysis based on the requested parameters.

- aadt_type – average daily traffic volume
- priority
- sh_sa_ir
- faadt
- fedfunccls
- fed_urbrur
- capacity
- jurisdictn
- link_id
- nhs_status
- num_lanes – travel lanes score
- offic_mile
- prim_bmp
- prirtecode
- prim_emp
- prirtename
- segment_id
- speed_lim – roadway posted speed limit
- speedsrc
- st_urbrur
- strtname
- townname
- towncode
- cntyname
- cnty_no
- surfc_type
- dot_region
- dot_regi_1
- shape_Leng
- corridorid - created
- *bike_ped_crashes_count –Number of bike/ped crashes within 50-ft of road segment. Calculated using the* ***Update Segment Data*** *python tool.*
- *bike_ped_fatal_crashes_count - Number of fatalities resulting from bike or pedestrian crashes within 50 feet of the road segment. Calculated within the* ***Update Segment Data*** *python tool.*
- *residential_density – Calculated prior to running the* ***Create Corridors*** *tool.*

- *schools_count – Number of schools within ¼ mile of road segment. Calculated within* ***Update Segment Data*** *python tool.*
- *at_count – Number of Maine state parks and sand beaches within ¼ of road segment. Calculated prior to running the* ***Create Corridors*** *tool.*
- *trails_count - number of multi-use trails within ¼ mile of road segment. Calculated prior to running the* ***Create Corridors*** *tool.*
- *trails_int – number of multi-use trails or greenways that intersect road segment. Calculated prior to running the* ***Create Corridors*** *tool.*
- *ecg_usbr - Calculated prior to running the* ***Create Corridors*** *tool.*

Resource Data Prep

Corridor ID – As a basis for evaluating HCP 3 & 4 corridors, smaller HCP 3 & 4 segments were grouped to form contiguous corridors. Segments were grouped to form corridors no shorter than ten miles and no longer than 30 miles. Corridors were selected to correspond with existing routes or existing AT connections to destinations. Corridors shorter in length than 10 miles were grouped with connecting roadways, and corridors longer than 30 miles were segmented along municipal boundaries.

Residential Density:

- › To determine dwelling units per square mile, I pulled table H1 from the 2020 Decennial Census at the block level. I joined this table to 2020 census block geometry, and then created a field calculating the area in square miles for each census block. Then, I created a "Dwellings per Sq Mi" field where I divided dwellings per block / square mile area.
- › Create a half mile buffer around all HCP 3 & 4 road segments (not the corridors)
- › Created the Dwelling Units Half Mile Radius Model by Segment Model Builder to perform the analysis for individual segments. See model for individual steps.
- › Join the model output to the HCP 3 and 4 Public Roads layer, then field calculate the results to the *residential density* field.

State Parks:

- › Export States Parks from feature service using the query *Designation = State Park*
- › The PROJECT field is the name of the state park. It's naming convention is not consistent which needs to be fixed for the dissolve. Field Calculate the PROJECT field into proper case so all the names: `Proper($feature.PROJECT)`
- › Dissolve the state parks layer using PROJECT as the dissolve field. The purpose of this dissolve is to create one seamless polygon for all state parks with the same name that touch each other. If not, inaccurate results will appear. For example, if one segment intersects two polygons each named Barrett Park the result would output two but it is actually the same park so the more accurate output is one.
- › Run a spatial join between the half mile HCP 3 and 4 Road buffer and the State Parks dissolve layer with a match option as intersect.
- › Join the spatial join output to the HCP 3 and 4 Road segments
- › Update the *AT Count* to include sand beaches.

Sand Beaches:

- Dissolve the sand beaches layer on the NAME field.
- Run a spatial join between the half mile HCP 3 and 4 Road buffer and the Sand Beaches dissolve layer with a match option as intersect.
- Join the spatial join output to the HCP 3 and 4 Road segments
- Update the *AT Count* to include sand beaches.

Trails:

- Dissolve the Trails layer based on Route Name and Use Type Code
- Use the Summarize Within tool to determine how many trails fall within the HCP 3 and 4 ½ mile buffer.
- Run a separate intersect to get how many trails intersect with the HCP 3 and 4 Road
- Join and calculate the *trails_count*, *trails_int* and *ecg_usbr* fields.

Environmental Justice Areas Index:

The EJ Index for Maine mimics the EJ index for Massachusetts, and uses the same methodology as described on the MassGIS Data: 2020 Environmental Justice Populations website. We pulled census tables B19013, C16002, and B03002 for all Census Block Groups in Maine, and then joined these tables to 2020 Census Block Group geometry. All three tables come from the 2016-2020 5-Year American Community Survey.

First, we determined which block groups were EJ populations through the criteria of Median Household Income. According to the 2020 Census, the Median Household Income in Maine was $59,489, meaning 65.49% is $38,959. Any block group with Median Household Income less than $38,959 was determined to be an EJ group.

Second, we determined which block groups were EJ populations through the criteria of Language Isolation. To do this, we added all Limited English-speaking household fields to create a total Limited English-speaking households (LESH) field. This includes Spanish language LESHs, Indo-European language LESHs, Asian and Pacific Island Language LESHs, and other languages LESHs. We then Limited English speaking households as a percentage of total households and classified any block group with 24.5% or more Limited English-speaking households as an EJ Population.

Finally, we determined which block groups were EJ Populations through the criteria of Minority Population. First, we calculated the Total Minority population for each block group by subtracting Total White Non-Hispanic Population from the total population. We then calculated Minority Population as a percentage of the total population. Any block group with a Minority population greater than 39.5% we designated as an EJ population. Additionally, any block group with a Minority Population between 24.9 and 39.5% and a Median Household Income less than 150 % ($89,234) of the state Median Household Income was designated as an EJ population.

MaineDOT HCP Road Prioritization Geoprocessing Tools

This tool is implemented as a python toolbox designed to be run in ArcGIS Pro 2.9.3. The following files are required to used the tool:

- HCPTools.pyt – toolbox template which gathers inputs from the user and called functions in the module

- HCPModule.py – Python module containing code where most of the work gets done.
- HCPConstants.py – Python module containing constants

The toolbox consists of two tools: **Update Segment Data** and **Create Corridors**

Update Segment Data tool takes the roads layer as an input parameter and updates values in these fields:

- bike_ped_crashes_count - number of bike or pedestrian crashes within 50 feet of the road segment
- bike_ped_fatal_crashes_count – number of fatalities resulting from bike or pedestrian crashes within 50 feet of the road segment
- schools_count – number of schools within ¼ mile of the road segment

Create Corridors tool takes the roads layer as an input parameter and a corridor feature class as an output parameter. This tool creates a new feature class representing road segment corridors with the following attributes:

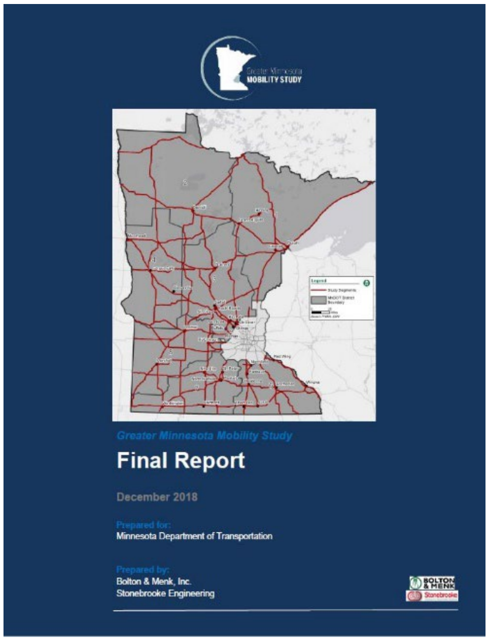
- corridorid – Corridor ID
- traffic_volume – traffic volume score (Criterion 1) based on the average traffic volume of all segments in the corridor.
- vehicle_speeds – vehicle speed score (Criterion 2) based on the average vehicle speed of all segments in the corridor.
- travel_lanes – travel lane score (Criterion 3) based on the average number of lanes of all segments in the corridor.
- bike_ped_crash – Bike or pedestrian crash score (Criterion 4) based on the average number of bike or pedestrian crashes within 50 ft among all segments in the corridor and total number of fatalities within 50-ft of the corridor.
- residential_density – Residential density score (Criterion 5) based on average residential among all segments in the corridor.
- active_transportation – AT score (Criterion 6) based on number of schools within ¼ mile and number of AT destinations within ½ mile of the corridor
- environmental_justice – Environmental Justice score (Criterion 7) based on the proportion of the corridor that intersects an environmental justice area.
- Trails – Trails score (Criterion 8) based on the number of trails within ½ mile of the segment, number of trails that intersect the corridor, proximity of the corridor to the East Coast Greenway and US Bike Routes.
- Score – the sum of the Criteria scores with the following weighting factors applied:
    - Criterion 1: 1
    - Criterion 2: 3
    - Criterion 3: 1
    - Criterion 4: 1
    - Criterion 5: 1
    - Criterion 6: 3
    - Criterion 7: 2
    - Criterion 8: 2

- Percentile – percentile ranking of corridor scores
- dot_regi_1 – DOT region
- regional percentile – percentile ranking of corridor scores within DOT region

Appendix E: Peer States AT Plan Comparisons

Minnesota

Consistent themes found in Minnesota DOT's (MnDOT) AT plans include an emphasis on separated bike facilities and creating supplementary design guidance for municipal engineers and leadership to inform and enforce decisions. These dedicated spaces aim to benefit bicyclists and pedestrians, especially along rural state roadways with high traffic volumes and speeds. Additionally, MnDOT developed evaluation criteria specific to each mode to help secure funding, planning, and engineering capacity and reach long-term goals serving all roadway users.



Greater Minnesota Mobility Study

Final Report

December 2018

Prepared for:
Minnesota Department of Transportation

Prepared by:
Bolton & Menk, Inc.
Stonebrooke Engineering

Greater Minnesota Mobility Study (2018)

Existing AT Planning & Policies

Several AT planning and design documents have been completed within the past five years including the Greater Minnesota Mobility Study (2018), Minnesota Statewide Bicycle System Plan (2016)—and the follow-up MnDOT District Bicycle Plans in 2019—the Minnesota Bicycle Facility Design Manual (2020), and the Statewide Pedestrian System Plan (2021). These build upon the success of the state's Complete Streets Policy (2016) and the Statewide Multimodal Transportation Plan under MnDOT's Minnesota GO 50-year long range plan. MnDOT is also currently developing a network of counting locations to better understand trends in bicycling and walking throughout the state (Minnesota GO & STMP, 2012).

Each of these plans address the specific safety needs of each mode. The MnDOT Family of Plans addresses all travel modes, works in tandem with one another, and guides investment priorities. Other key takeaways include:

- Besides Minnesota's policies to support and maintain existing pedestrian and bicycle facilities during the winter season, the statewide bicycle and pedestrian plans also recommend MnDOT:
  - District offices should continue to evaluate snow and debris removal policies as the bicycling network expands and gains users (already established for the Twin Cities MnDOT Metro District)
  - Review maintenance expectations and specific agreements with local maintenance staff and allocate staff time to enforce maintenance agreements to ensure sidewalks, in particular, are addressed properly
  - Identify ways that state projects can offer up-front maintenance support to municipalities (though with the understanding that they will carry out regular maintenance), such as purchasing maintenance equipment for local agencies, leasing or renting MnDOT equipment at low or no cost or contributing funding toward local agencies' equipment with training included
- MnDOT's Statewide Bicycle and Pedestrian System Plans have two distinct sets of evaluation criteria and guiding principles for each mode and are treated separately in goals and benchmarks.

- In service of the Complete Streets Policy, MnDOT construction projects within trunk highway right-of-way must have a documented Complete Streets project report identifying considerations for all users.
- The Bicycle Facility Design Manual (2020) provides guidance for MnDOT staff to develop safe bicycle facilities along the state highway system and reflects a commitment to design bicycle facilities whenever possible for people who are "interested" in bicycling "but concerned" about personal safety issues.

Complete Streets Elements

Minnesota's Complete Streets Policy states that districts should give higher priority to projects that affect Environmental Justice populations such as low-income residents. The policy also lays out goals for increasing the number of multimodal users, addressing safety concerns and gaps in transportation, and meeting goals within other regional or local plans. The policy requires the review of transportation projects with the following focus: community context, topography, road function, vehicular traffic speed, freight volumes, and pedestrian and bicycle demand. In service of the Complete Streets Policy, MnDOT construction projects within trunk highway rights-of-way must have a documented Complete Streets project report identifying considerations for all users. Project Managers must then complete the reports at the end of project scoping and revise them at 30% final design (MnDOT, 2016 & 2021).

AT Evaluation Criteria

Through the Greater Minnesota Mobility Plan (2018), all MnDOT AT projects are prioritized using a three-step process.

1. Staff review the project's mobility and reliability, prioritizing locations with high variability in travel times and consistent mobility issues.
2. The project's history of safety is considered, prioritizing locations that have a high frequency of crashes (crashes correlate to potential mobility and reliability issues). "Critical Crash Rates" and "Fatal and Serious Crash Rates" are then used as metrics.
3. The System Role and Route Characteristics of the project and prioritizing locations that serve the greatest number of regional trips, freight traffic, and tourism are reviewed.

Pennsylvania

The vision and goals for Pennsylvania's 2021 AT Plan emphasize an elevated interest and prioritization of AT projects throughout the state, improving pedestrian and bicycle connectivity, shared-use paths, bicycle lanes and other protected bicycle facilities. PennDOT provides a clear commitment to create sustainable and equitable policies, projects and programs and improve conditions for walking and bicycling. Similar to what is being considered in Maine, PennDOT has developed a Health and Equity Analysis and is looking to increase AT connectivity by installing shoulders and improved bicycle facilities on urban and rural roadways.

Existing AT Planning & Policies

Pennsylvania AT Plan (2021)

PennDOT updated their AT Plan in 2021. The Department is currently looking to adopt a Complete Streets Policy and improve the current design review process for both pedestrian and bicycle projects. There is also an interest in integrating equity criteria into decision-making policies and plans including Complete Streets and prioritizing walking and bicycling projects in underserved areas with vulnerable populations.

Pennsylvania's 2021 AT Plan addresses pedestrian and bicycle considerations, and emerging mobility options including e-scooters, Neighborhood Electric Vehicles (NEV), bikeshare, e-bikes, and scooter-sharing. Similar to efforts in Maine, PennDOT aims to collaborate with municipalities, transit providers, and health care entities to connect AT infrastructure projects to public transit networks. Additional takeaways include:

- The top request from Pennsylvania residents was for the State to develop and adopt a Complete Streets Policy (currently in process). The top recommendation from transportation stakeholders is developing a statewide bicycle and pedestrian inventory process in PennDOT's GIS format.
- Key trends emerging from Pennsylvania's crash analysis note that the counties that have the highest concentration of vulnerable populations also have significant crash clusters, and the majority of bicycle and pedestrian crashes happen in daylight, with no adverse weather conditions. The AT Plan points to a need for adequate bikeways, sidewalks, and wide shoulders to reduce crash risk.
- Pennsylvania has a disparity in the number of bike facilities between urban and rural settings throughout the state. The AT Plan lays out recommendations to increase connectivity and install shoulders and improved bicycle facilities in rural areas throughout the state.

AT Evaluation Criteria

The Pennsylvania AT Plan uses six themes to prioritize PennDOT's AT projects:

- **Enhancing Safety** – for non-motorized users.
- **Providing Transportation Equity** – Providing opportunities for people of all ages, abilities, races, ethnicities, and incomes in urban, suburban, and rural areas to bicycle, walk, or roll.
- **Connecting AT Networks** – Providing a complete pedestrian and bicycling network that accommodates micromobility devices (such as skateboards and scooters), reliably and easily connects users of all ages and abilities
- **Leveraging Partnerships** – Working collaboratively with federal, state, regional, local, and private partners to support walking and bicycling.
- **Improving Public Health** – Providing active living environments with safe, connected, accessible facilities along with programs that influence public health by encouraging walking and bicycling.
- **Increasing Economic Mobility** – Maximizing economic competitiveness through walking and bicycling networks that improve people's abilities to access jobs, businesses, and essential and recreational destinations.

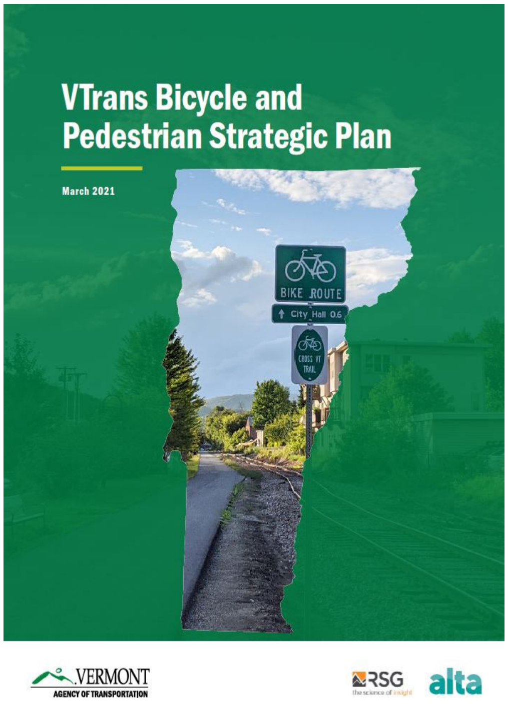
Vermont

Vermont's Agency of Transportation's (VTrans) 2021 Bicycle and Pedestrian Strategic Plan (BPSP) advances multimodal safety and access by prioritizing Complete Streets investments. VTrans requires a Complete Streets checklist for planners and engineers during project development to ensure compliance. Furthermore, Vermont has prioritized projects within the Plan to ensure funding and to meet strategic goals within the state's desired timeframe.

Existing AT Planning & Policies

VTrans' BPSP includes a focus on improving bicyclists' level of comfort with improved facilities, after a robust statewide Level of Traffic Stress (LTS) analysis. Some additional takeaways from Vermont's Plan include:

- The BPSP includes best practice interviews from select transportation agencies to identify future organizational improvements to implement internally to better accommodate people walking and bicycling. Equity checks were part of this interview process.
- VTrans includes Complete Streets – Planning and Design Phase Checklists during project development.
- VTrans has no formal structure detailed in the BPSP to ensure the needs of pedestrians and bicyclists are incorporated into agency projects, programs, or policies. Along with this formalized process there is a need for a comprehensive improvement plan which identifies opportunities to enhance bicycle conditions on state roads.


VTrans Bicycle and Pedestrian Strategic Plan

March 2021

VTrans Bicycle and Pedestrian Strategic Plan (2021)

Multimodal Connections with Transit

One key BPSP recommendation is the incorporation of pedestrian and bicycling considerations into the planning and design of transit networks. This includes a strategy of increased forms of communications (including survey and questionaries) with towns and Regional Planning Commissions to discuss the planning of AT networks with transit services. Other transit strategies include collaborating with transit agencies to include location and use information on nearby walking and bicycling facilities in future mobile applications to encourage multimodal transportation options and transit connectivity. A pedestrian and bicycle connectivity assessment has become part of the transit stop checklist and evaluation process.

Further recommendations include identifying priority transit improvements at state designated High Crash Locations, revising grant selection criteria to include additional points for last mile transit connectivity, and installing AT amenities in high-use transit corridors. Maine could mirror VTrans' various transit prioritization strategies for the *SATP* to create a multi-tier approach to gather location and use data on existing multimodal facilities and assess AT and transit connectivity. Additional possibilities for Maine could include revisions of grant selection criteria to reward transit connectivity considerations in proposed projects, and work with internal and external transit liaisons and ADA coordinators to determine high crash locations in need of AT improvements.

Complete Streets Elements

VTrans' BPSP highlights Complete Streets practices and principles such as adhering to ADA compliance for existing and proposed facilities, on-road pedestrian and bicyclist infrastructure improvements, pedestrian crossing enhancements, sidewalk upgrades and gap-fill, shared use paths, and other pedestrian and bicyclist amenities (VTrans, 2021).

AT Evaluation Criteria

The BPSP Report provides a project selection and prioritization criteria that must be met. They include:

- Safety Condition
- Community Needs
- Economy
- Mobility / Connectivity
- Resiliency
- Environmental Health
- Personal Health/Health Access
- "Safe Routes to School" or presence of school age children

Table I Peer States AT Comparison Matrix

State	Population (2020 Census)	Geographic Area (Sq. Miles)	Existing Active Transportation Facilities	Existing Active Transportation Programs	State Maintained Highways (Miles)	Annual Surface Transportation Funding	State Funding Deficit	Annual State Transportation Funding or Capital Funding	Existing Active Transportation Planning & Policies	Complete Streets Elements
Maine	1,362,359	35,385	• Sidewalk Miles: 846 linear miles along MaineDOT roadways • Designated Trails and Bicycle Routes: 509 miles (includes segments of the East Coast Greenway, Eastern Trail, and three U.S. Bike Routes) • Thousands of miles of roadway shoulders ≥5 feet wide • Public Bike/E-scooter Share: bike share to be launched in Portland in 2022	• Bicycle/pedestrian Safety Education Program (with BCM) • Head's Up! Pedestrian Safety Planning Initiative • Revised Complete Streets Policy form as part of Prelim. Design Review • On-bike trainings and ADA experiential trainings with MaineDOT staff • E-bike "lending library" pilot program • (See Existing Conditions Assessment Technical chapter for additional detail)	• Interstate Highways - 367 • Principal Arterials -904 • Intermodal Connectors - 23 • Major Collectors - 5,022 • Minor Collectors - 16,484 • TOTAL - ~22,800	FAST Act funding for 2016-2021 (given 1 year extension) for road, highway, and bridge repair: $1.2 billion, average of $197 million per year	Funding gap of $160 million annually (with federal assistance, reducing current $232 million gap); state experiencing revenue drop of $125 million (24%) since 2020 for state's Highway Fund.	• Maine to receive $1.5 billion over next 5 years through the Bipartisan Infrastructure Law • 2021 - Voters approved $100 million Transportation Bond • As of 2020, Maine's Recreation Trail Program annual funding is roughly $1.4 million.	• Complete Streets Policy (2019) • MaineDOT Bridge Design Guide • MaineDOT Flexible Design Practices • Maine Guidelines on Crosswalks • MaineDOT Guidelines for the Use of Traffic Calming Devices • MaineDOT Shoulder Surface Type Policy • Sensible Transportation Policy Act • Traffic Movement Policies and Procedures • 2015 Maine Strategic Transit Plan • 2025 and Maine Highway Safety Plan • FY2022 Plans In-Progress: Long-Range Transportation Plan 2050 (stakeholder outreach begun in 2018), MaineDOT's Heads Up Pedestrian Safety Action Plan (2021) and MaineDOT Statewide Active Transportation Plan (2022)	CS projects include, but are not limited to: bridge, highway, intersection, safety, transit, lane and shoulder widths/markings during paving, privately initiated projects, and new-capacity street and highway projects. Facility alternatives, such as sidewalks, bicycle lanes, separated facilities, transit stops, ADA-accessible routes, and travel lanes are unique to each project, and must also be considered on a case-by-case basis.
Minnesota	5,706,494	86,943	• Sidewalk Miles: 620 miles along state highways • Designated Bicycle Routes: 1,133 miles (Mississippi River Trail and North Star Route) • Designated Trails: More than 4,000+ miles • Public Bike/E-scooter Share: One provider (Nice Ride MN) operating in Minneapolis and St. Paul; other informal systems in communities statewide	• Bicycle and pedestrian traffic count program • Minnesota Walks program • Walk! Bike! Fun • Safe Routes to School (SRTS) statewide program paired with Minnesota SRTS Five Year Strategic Plan SRTS Steering Committee	• Over 145,000 centerline miles (Largest Ownership of Highways in US) • Total State Trunk Highways - 11, 814 (include Interstate Highways: 914 miles) • County State-Aid Highways - 30,459 • Muncipal State-Aid Streets - 2,970	FAST Act funding for 2016-2020: $4 billion; $800 million per year	Gas tax funds FAST Act, has not been increased since 1993. $16.3 billion funding gap over the next decade.	In 2022, MnDOT expected to see $5.45 billion in Federal Infrastructure Investment and Jobs Act (IIJA); FHWA Recreational Trail Program Budget for 2022: $2.4 million. In 2021 the Legislature authorized $52.5 million funding for several capital programs and facilities MnDOT manages, including Safe Routes to School and Active Transportation. In addition, the Legislature authorized nearly $31 million in General Funds for corridor studies and local road project grants and $413 million in THB for Regional and Community Investment Priorities, State Road Construction, and Corridors of Commerce.	• Greater Minnesota Mobility Study (2018) • MnDOT District Bicycle Plan (2019) • Minnesota Bicycle Facility Design Manual (2020) • Statewide Pedestrian System Plan (2021) • Complete Streets Policy (2016) • Statewide Multimodal Transportation Plan within MnDOT's Minnesota GO 50-year long range plan	CS Policy gives higher priority to projects that affected EJ populations. The policy aims to increase the number of multimodal users, address safety concerns and gaps in transportation, meet goals within other regional or local plans. MnDOT's CS Policy works with the Land-use Context Technical Memorandum. MnDOT construction projects within trunk highway right-of-way must have a documented CS project report identifying considerations for all users.

State	Population (2020 Census)	Geographic Area (Sq. Miles)	Existing Active Transportation Facilities	Existing Active Transportation Programs	State Maintained Highways (Miles)	Annual Surface Transportation Funding	State Funding Deficit	Annual State Transportation Funding or Capital Funding	Existing Active Transportation Planning & Policies	Complete Streets Elements
Pennsylvania	13,002,700	46,055	• Sidewalk Miles: sidewalk miles not available. • Designated Bicycle Routes: As of 2016, Pittsburgh has 60+ miles, Philadelphia 200+ miles of bike facilities. Rural bike facility mileage not available • Designated Trails: More than 12,000 miles • Public Bike/E-scooter Share: Pittsburgh has Healthy Ride bikeshare which converted portions of its fleet to e-bikes in 2022; Philadelphia has Indego bikeshare with established e-bike options as well	Safe Routes to School (led and funded by PennDOT and supported by the Department of Health and related municipalities) Highway Safety Grant Program	• PennDOT Owned Highways - 39,723 • Pennsylvania Turnpike - 553 • Other PA State Agency Owned - 1,471	FAST Act funding: $66 million, average of $13.2 million per year.	$9.35 billion funding gap. Current annual budget: $8.6 million (25% fed, 75% state); $17.95 billlion is needed for PennDOT's annual budget to keep transportation system in good repair;	Additional $3.2 billion from Bipartisan Infrastructure Law for highway and bridges over 5 years. FHWA Recreational Trail Program Budget not available.	PennDOT Active Transportation Plan (2021) Bicycle and Pedestrian Policy Study (2016) PennDOT Connects Policy (2016) Bicycle & Pedestrian Policy Study Update Pennsylvania Transportation Advisory Committee / PennDOT (2017) PennDOT Pennsylvania Strategic Highway Safety Plan (2017)	No Statewide Complete Streets Policy; General CS elements suggested, but not required or enforced
Vermont	643,077	9,616	• Sidewalk Miles: sidewalk miles not available. • Designated Bicycle Routes: 1,600-mile network of bike routes (the Lake Champlain Bikeways) • Designated Trails: Long Trail – 272 miles, Appalachian Trail segment – 150 miles, and LaMoille Valley Rail Trail – 93 miles • Public Bike/E-scooter Share: Greenride Bikeshare in Burlington (launched 2018), bikeshare converted to electric for various cities throughout the state	• Vermont Bicycle and Pedestrian Program • Vermont Bicycle and Pedestrian Grant Program • Transportation Alternatives Program • Safe Routes to School(supported to VTrans although future of SRTS programs is unknown and tied to limited funding) • Transportation Planning Initiative • Better Connections Program	• Stateway Highways (including Interstate): 2709 • Other Freeways and Expressways: 2791 • Other Principal Arterials: 8536 • Minor Arterials: 1595	FAST Act funding: $15 million over 5 years; average of $ 3 million a year.	Funding gap not indicated.	Additional $1.6 billion from Bipartisan Infrastructure Law for highway and bridges over 5 years. FHWA Recreational Trail Program Budget 2022: $1 million.	2020 VTrans ADA Transition Plan Revamping VTrans' Project Selection & Prioritization Processes Update Vermont Safe Routes to School Safety & Enforcement, Programs and Processes Bicycle and Pedestrian Grant Program Guide Guidelines for Pedestrian Crossing Treatments Snow and Ice Control Plan Vermont On-Road Bicycle Plan: Phase I and II Complete Streets: A Guide for Vermont Communities Vermont Pedestrian and Bicycle Policy Plan Sidewalks Construction & Maintenance Policy Vermont Pedestrian and Bicycle Facility Planning and Design Manual	VTrans BPSP highlights CS practices such as adhering to ADA compliance for existing and proposed facilities, on-road pedestrian and bicyclist infrastructure improvements, pedestrian crossing enhancements, sidewalk upgrades and gap-fill, shared use paths, and other pedestrian and bicyclist amenities.

Table II Additional States Winter Maintenance Comparison Matrix

State	Population (2020 Census)	Geographic Area (Sq. Miles)	Winter Maintenance Responsibilities	Public Consensus	Enforcement	Consequence(s)	Snow Storage and Priority	Local Match Policy	AT Staff
Maine	1,362,359	35,385	• Municipalities are responsible for snow and ice removal of the sidewalks. • In some urban and downtown areas, property owners are responsible for winter maintenance. • MaineDOT is responsible for a very small amount of sidewalks which are mostly rest stops and bridge sidewalks. DOT will work with municipalities to construct sidewalks on state owned roads but the responsibility of winter maintenance will be the municipalities. MaineDOT has the right to perform maintenance and bill the municipality if it is not completed to satisfactory. • There is a Federal Statue that requires all sidewalks that receieve federal funding to be maintain including in the winter.	• Complaints about winter sidewalk maintenance has been an issue. • In the winter time, pedestrians will walk in the road due to sidewalks not being cleared in an adequate time.	• There is no universal enforcement of snow removal on sidewalks in Maine.	• There are no consequences, penalties, or fines, if a muncipality does not clear the sidewalks. • There is no enforcement from the Federal Government on State Government.	• Some of the snow may be pushed into crosswalks or sidewalks while plowing the roads. • The DOT is encouraging municipalities to create a prioritization list of roadways and sidewalks in their town. • The timeframe for snow removal on sidewalks varies between municipalities and the size of the snow storm.	• For existing sidewalks and new sidewalks within Compact Area or Qualifying Pedestrain Area, municipalities are responsible for 20% of the cost. • New sidewalks outside of Compact Area or Qualifying Pedestrian Area will be considered a Local Interest Element.	• 1 Active Transportation Planner • 4 people who encorporate AT in their work
Vermont	643,077	9,616	• Municipalities are exclusively responsible for winter maintenance of sidewalks. Some municipalities may require property owners to clear the sidewalks. • Municipalities must sign an agreement that states that they are responsible for maintenance which includes winter snow and ice removal. Municipalities have to sign either a finance and maintenance agreement or just a maintenance agreement. • Some sidewalks were built prior to the maintenance agreement and can fall into a grey area when an issue arrises. • All sidewalks that have been funded or constructed by VTrans has to meet the State and Federal criteria for pedestrian accommodation.	• There have been very few complaints from the public to Vtrans about winter sidewalk maintenance. Most of the complaints VTrans receive in regard to mainteance is curb ramps. • Municipalities may recieve more complaints about winter maintenance than VTrans.	• There is no universal winter mainteance enforcement in Vermont. However, some towns may enforce snow removal. • Vermont Center for Independent Living will reach out to the state or muncipality if there is an ADA issue or complaint.	• There are no consequences, penalities, or fines, from Vtrans if a municipality does not clear the sidewalk. • Some towns may have consequences.	• VTrans does not prioritze sidewalks since they are not responsible for them. • Each municipality has a different timeframe for snow removal. However, most towns are able to clear the sidewalks in the allocated time frame that meet ADA standards. • In some downtown areas, where there is nowhere to blow the snow, it may get pushed on the curb side.	• Municipalities are responsible for 20% of the cost.	• 1 Bicycle and Pedestrian Coordinator • 5 people who encorporate AT in their work • 4 positions that manages municipal sidewalk and bike projects • Hiring a rail trail manager that would oversee all rail trail projects
Minnesota	5,706,494	86,943	• The responsibility of winter maintenance is a mixture of state government, muncipial government, and property owners. • There is no statewide agreement in Minnesota about sidewalk snow removal. For new or rebuilt sidewalks, there is a basic maintenance agreement that needs to be signed stating who is responsible. Sometimes maintenance agreements are left until after the sidewalk has been built which is where issues arise. • Previous sidewalk projects have not had well defined maintenance agreements. • With municipality-led, they are responsible for removing all snow and ice from sidewalks or hire cotractors to do that. However, this is less common due to the cost of labor and equipment. • With partially municipality-led, municipalities are responsible for clearing snow and ice from priority sidewalks and property owners are responsible for clearing the rest of the sidewalk. Most of the priority sidewalks are routes around schools, and routes with intensive land uses or high walking traffic. Some muncipalities will organize volunteer programs that assist seniors and people with disabilities. • With property owner led, the property owner is responsible for snow and ice removal from sidewalks adjacent to their property within a specified timeframe. Generally the timeframe for most muncipalities is between 24 and 72 hours after a snowfall has stopped.	• Winter maintenance is often mentioned as a barrier to walking in the winter. • General public consensus is that sidewalks and paths aren't mainted as well as roads in the winter. • In the winter, you will see folks walking in the roads.	• There is no universal enforcement of snow removal in Minnesota, rather it is up to the municipality. MnDOT does not check or enforce snow removal on sidewalks. If they receive a complaint they may enfore. • Most enforcement is complaint driven. • Enforcement of snow removal policies varies between municipalities.	• Some municipalities will issue warnings for non-compliance, followed by an inspection from a municipial staff. • If sidewalks have not been cleared after warning, citations may be given to the property owners who do not clear sidewalks after the waring was issued. • If sidewalks aren't cleared after warning, some municipalities will remove the snow themselves or through contractors and bill the property owners. • Not all municipalities iusse a warning for non-compliance rather they will issue a citation immediately.	• Snow storage is a concern in Minnesota. • Snow is often passed back and forth between the sidewalks and road shoulders. • Crossing streets at intersections can be difficult in the winter due to Windrows created by road plows. • Without proper snow storage, sidewalks become narrow or impassable in the Winter. • Each municipality has there own timeframe and priority for snow removal.	• For new or replacement sidewalk facilities necessary for a saftey purpose MnDOT can pay for 100% of the project. Municipalities will pay for the long-term costs.	• 6 Active Transportation Planners • There are additional active transportation planners who work in the 8 different districts.

State	Population (2020 Census)	Geographic Area (Sq. Miles)	Winter Maintenance Responsibilities	Public Consensus	Enforcement	Consequence(s)	Snow Storage and Priority	Local Match Policy	AT Staff
New Hampshire	1,377,529	9,349	• The responsibility of winter maintenance on sidewalks is soley on municipalities. • Local NHDOT crew will adjust plow patterns when possible to help municipalities. These agreements are made between municipality and the NHDOT Patrol Foreman.						
New York	20,201,249	54,556	• Municipalities are generally responsible for the maintenance of bike paths, bicycle parking facilities, recreational walkways, or shared-use paths. • If sidewalk facilities are built they must be approved by the municipality or agency that will be responsible for their maintenance. The municipality or agency that is responsible for facilities would pass a resolution and enter into a Memorandum of Understanding or other agreement. • The Highway Law requires that villages, towns, and cities maintain sidewalks on state highways in their municipalities. Maintenance includes snow and ice removal.		• Enforcement is on a municipality basis.	• On a municipality basis.	• Windrows may be left, but should remain in such an area for as brief a period of time as reasonably possible • Within municipal and comerical areas "reasonable passage and movement" may require loading and hauling snow. • Resident Engineer shoud meet with appropriate municipal officals to coordinate snow removal efforts in these areas to minimize the impact to pedestrians		• 11 Regional Bicycle and Pedestrian Coordinators • 1 Statewide Pedestrian/Bicycle Coordinator and Pedestrian and Bicycle Section Director
Massachusetts	7,029,917	10,565	• The responsibility of winter maintenance on sidewalks is a mixture of state government, municipial government, and property owners. • Some muncipalities require property owners to clear snow and ice adjacent to their property, while also having to sand or salt. This is the most common practice with a time frame of 4 to 24 hours after snowfall has stopped depending on the storm. The municipality will maintain sidewalks that are adjacent to municipal properties (government buildings, parks, or school). • Other municipalities will clear all sidewalk snow and ice clearance through municipical staff or hired contractors. • 46 Massachusetts municipalities have a policy to remove snow from sidewalks under their jurisdiction.	• According to a public survey, 58% of respondents expressed that snow and ice clearance was a barrier to everyday biking.	• Enforcement is on a municipality basis. • Some municipalities have inspectors who reguarly examine the sidewalks to ensure the snow is removed in the allocated time period. • Other municipalities rely only on residents to report violations.	• Municipalities that require property owners to clear sidewalks issue warnings for non-compliance. Warnings are then followed by citations to property owners. If sidewalks are still not cleared municipalities or a contractor would clear the snow and bill the property owner. • Some municipalities will issue citations for non-compliance the day after a snow event while others will issue citations during the snow storm.	• Priority level 1 for the MassDOT is designated sidewalks, pathways, and crosswalks which provide safe passage near schools that are in-session. • MassDOT has modified their pedestrain snow and ice removal priorities to reflect changes in school and commuting schedules. For example, if students are being taught remotely the priority of sidewalk route is much lower than schools who are providing in-person learning. • Priority level 2 for the MassDOT is sidewalks pathways and crosswalks providing safe passage to schools, foot bridges, bus shelters, bus stops, T-stations, including median strips and handicap ramps. • Priority level 3 for MassDOT is less traveled sidewalks, pathways, crosswalks and multi-use paths. • Each municipality has there own time frame and snow priority level.		• 1 Bicycle and Pedestrian Coordinator • 6 District Bicycle and Pedestrian Coordinator

Appendix F: Detailed Funding Options

Table 1 Current State of Maine Funding Options for Active Transportation Improvements

Agency	Program Title	About Program & AT-Related Information | Amount(s)	Recipient(s)/ Applicant(s)
MaineDOT	Bicycle Signage	MaineDOT has adopted a set of approved signs Signage such as "Bikes May Use Full Lane", Maine's 3 ft. Law, and bicycle wayfinding. The deparment must approve any signage placed on MaineDOT jurisdictional highways, and strongly encourages all municipalities to use these approved signs even on local roads. MaineDOT is responsible (if funding is available) for the cost of putting up single or multiple safety signs on the state highway system upon an approved request.	Municipalities, Tribal governments
MaineDOT	Business Partnership Initiative (BPI)	The BPI program enables local municipalities and business partnerships to improve a portion of state or state aid highway for bicycle, and pedestrian access and safety. The funding contribution for a project is capped at 33.3% percent of the total project cost, with a state share not exceeding $1 million. The local community and business(es) will contribute 33.3% each.	Partnerships between local municipalities and one or more businesses
Maine Department of Economic and Community Development	Downtown Revitalization (DR) Grant Program	The DR Program provides funds to communities to implement comprehensive, integrated, and innovative solutions to the problems facing their downtown districts. All communities applying for DR Program funds must provide a 25% match which must consist of private sector investments directly related to the project. Maximum DR Award: $300,000. See: https://www.maine.gov/decd/community-development/cdbg-program/grant-categories/downtown-revitalization-grant-program	Municipalities
Maine Department of Inland Fisheries and Wildlife	Maine Outdoor Heritage Fund (MOHF)	the MOHF program reserves 35% of its funding for "Acquisition and management of public lands, parks, wildlife conservation areas, and public access and outdoor recreation sites and facilities" - including for trail land acquisition and connection building. Grants generally range from $5,000-$25,000. See: https://www.maine.gov/ifw/programs-resources/grants/outdoor-heritage-fund.html#who	State agencies and any organization that is an insured vendor with the State of Maine
MaineDOT	Municipal Partnership Initiative (MPI)	The MPI is intended to focused on the road core and may include surface treatments, road reconstruction, drainage improvements, intersection improvements, and more - including bicycle and pedestrian access and safety. See: https://www.maine.gov/mdot/pga/cbi/municipal/index.shtm	Municipalities
MaineDOT	Planning Partnership Initiative (PPI)	The PPI is intended to address time-sensitive, locally initiated planning and feasibility studies and can include: transportation planning; identification and evaluation of potential transportation alternatives; transportation resiliency and greenhouse gas emission reduction strategies; multimodal planning to address those deficiencies; conceptual renderings of transportation alternatives; cost estimating for potential future transportation improvements	Municipalities [and Tribal governments?]
MaineDOT	State Transportation Improvement Program (STIP)	The STIP covers a period of 4 years and is consistent with Maine's LRTP. The STIP includes the TIPs of Maine's four MPOs and includes projects such as: sidewalks, bicycle paths, bridges, roadways, and transit investments. Projects in the STIP represent work funded by FHWA and Federal Transit Authority (FTA), projects requiring a federal action by FHWA and/or FTA, and regionally significant transportation efforts in Maine. See: https://www.maine.gov/mdot/stip/	Maine municipalities and Tribal governments
MaineDOT	Village Partnership Initiative (VPI)	The VPI is designed to be available to all willing communities that have or can agree upon a local vision. Village projects can vary from small, spot improvements to large investments. Opportunities are available for any Maine village or downtown on a state or state aid highway where a community has a vision for significant improvements to lower-speed areas that are or could become a community center inviting businesses and community facilities and are walkable and bicycle friendly. These projects are anticipated to cost $10 million or more and would likely be contingent on securing special federal allocations such as earmarks or grants. For smaller spot improvements: this program will invest $1 million in state funds, leveraging another $1 million in local funding for projects such as gateway treatments, marking the beginning of a village area to help slow traffic, enhance sidewalks, improving pedestrian crossings and ADA compliance. See: https://www.maine.gov/mdot/pga/cbi/village/index.shtml	Maine villages or downtowns on a state or state-aid highway

Table 2 Federal Funding Options for Active Transportation Improvements

Agency	Program Title	About Program & AT-Related Information | Amount(s)	Recipient(s)/ Applicant(s)
Federal Highway Administration, USDOT	Active Transportation Infrastructure Investment Program / a.k.a. The Connecting America's Active Transportation System Act (H.R. 2991/S.684)	This new program was authorized in the Bipartisan Infrastructure Law (BIL) at $45 million for Fiscal Year 2023 and is subject to appropriations. It establishes competitive connectivity grants that strategically invest in projects that connect AT networks, creating safe and convenient routes to everyday destinations. While this new program was authorized, it was not funded, leaving its future up to yearly appropriations processes of up to $500 million per year. See: https://www.railstotrails.org/policy/trailstransform/active-transportation-infrastructure-investment-program/	State of Maine, local or regional governments (including regional planning organizations), Tribal governments
Federal Highway Administration, USDOT	Bridge Replacement, Rehabilitation, Preservation, Protection, and Construction Program (Bridge Formula Program - BFP)	This program as updated in the BIL includes modernizing bridges to withstand the effects of climate change and to make them safer for all users, including bicyclists and pedestrians. BFP funding is subject to requirements for accommodations for bicycles and pedestrians pursuant to 23 U.S.C. 217(e). The FHWA will presume that safe accommodation for bicyclists and pedestrians can be provided at reasonable cost for all BFP projects, absent a showing by the project sponsor that the cost of such accommodation would exceed 20% of the cost of the larger transportation project. Maine was allocated $31,123,734 in the 2022 Apportionment of Highway Infrastructure Program Funds. See: https://www.fhwa.dot.gov/environment/bicycle_pedestrian/guidance/design.cfm	MaineDOT (formula funding); Tribal governments
Federal Highway Administration, USDOT	Multimodal Project Discretionary Grant (MPDG)	The MPDG program—including the Mega, INFRA, and Rural grants—does not focus specifically on AT projects but can incorporate significant AT elements into larger-scale surface transportation projects. The MPDG may be an option for Village Partnership Initiatives or other larger-scale multimodal investments. Combined, these programs will provide $15 billion over five years.	MaineDOT (formula funding)
Federal Highway Administration, USDOT	Carbon Reduction Program (NEW) -	The BIL establishes the Carbon Reduction Program (CRP), which provides funds for projects designed to reduce transportation emissions, defined as carbon dioxide (CO2) emissions from on-road highway sources. Eligible projects include but are not limited to, the construction, planning, and design of on-road and off-road trail facilities for pedestrians, bicyclists, and other nonmotorized forms of transportation. State shall coordinate with any MPO or RPO that represents urbanized or rural area prior to determining which activities should be carried out under the project. See: https://www.fhwa.dot.gov/bipartisan-infrastructure-law/crp_fact_sheet.cfm	MaineDOT (formula funding)
Federal Highway Administration, USDOT	Complete Streets set-aside	2.5 percent of each MPO's federal planning funds are to be used for producing Complete Streets standards, facilitating planning for Complete Streets project prioritization plans, and developing active transportation plans. See: https://highways.dot.gov/complete-streets	Metropolitan Planning Organizations (via MaineDOT formula funding)
Federal Highway Administration, USDOT	Congestion Mitigation & Air Quality Improvement Program (CMAQ)	The BIL continues the CMAQ program for transportation projects and programs that reduce congestion and improve air quality for areas that do not meet the National Ambient Air Quality Standards for ozone, carbon monoxide, or particulate matter (nonattainment areas) and for former nonattainment areas that are now in compliance (maintenance areas). These projects must be included in the MPO's current transportation plan and TIP or current STIP in areas without an MPO. The BIL continues all prior CMAQ eligibilities, and among four new eligibilities also includes shared micromobility, including bikesharing and shared scooter systems. See: https://www.fhwa.dot.gov/bipartisan-infrastructure-law/cmaq.cfm	MaineDOT (formula funding)
Federal Highway Administration, USDOT	Highway Safety Improvement Program (HSIP)	The HSIP is a core Federal-aid program funded through the FHWA and administered by MaineDOT. The HSIP's purpose is to reduce traffic fatalities and serious injuries on all public roadways, including non-State owned public roads and roads on tribal lands. HSIP funds can be used for bicycle and pedestrian safety projects, including on and off-road projects, that focus on bicycle and pedestrian safety.	MaineDOT (formula funding)

Agency	Program Title	About Program & AT-Related Information | Amount(s)	Recipient(s)/ Applicant(s)
National Park Service	Land and Water Conservation Fund (LWCF) State and Local Assistance Grants	The State Side of the LWCF provides matching grants to states and local governments for the acquisition and development of public outdoor recreation areas and facilities, including bicycle and pedestrian facilities. The LWCF Act authorizes 50/50 matching grants to states (and through states to local units of government) to plan, acquire, and develop public lands for outdoor recreation. See: https://www.nps.gov/subjects/lwcf/stateside.htm	State of Maine, tribal governments, local government entities
Federal Highway Administration, USDOT	National Highway Performance Program (NHPP)	The BIL continues the NHPP, which focuses on the performance of the National Highway System (NHS). Pedestrian and bicycle transportation projects associated with NHS facilities are eligible for funding. https://www.fhwa.dot.gov/fastact/factsheets/nhppfs.cfm	MaineDOT (formula funding)
Federal Highway Administration, USDOT	Promoting Resilient Operations for Transformative, Efficient, and Cost-Saving Transportation (PROTECT) Program (NEW)	New BIL funding to make local transportation infrastructure more resilient to extreme weather and natural disasters and to build emergency response infrastructure. Funding can be used to provide evacuation and recovery mobility to all road users, including bicycle and pedestrian facilities - and to build biking, walking, and rolling infrastructure into all resiliency plans and evacuation routes. See: https://www.fhwa.dot.gov/legsregs/directives/notices/n4510864/n4510864_t20.cfm	MaineDOT (formula funding, $6.5 million); MPOs/RPOs, Tribal governments, municipalities, other local entities ($1.4 billion competitive grant portion)
Federal Railroad Administration, USDOT	Railroad Crossing Elimination Grant Program	This program provides funding for highway-rail or pathway-rail grade crossing improvement projects such as grade separation or closure; Track relocation; improvement or installation of protective devices, signals, signs, or other; measures to improve safety related to a separation, closure, or track relocation project. See: https://railroads.dot.gov/grants-loans/competitive-discretionary-grant-programs/railroad-crossing-elimination-grant-program	State of Maine; County; Tribal government; municipality or other unit of local government; Public port authority; or MPO
USDOT	Rebuilding American Infrastructure with Sustainability and Equity (RAISE)	The RAISE Discretionary Grant Program funds increased by approximately $500 million over last year under the BIL to help meet overwhelming demand. RAISE discretionary grants can be used for a wide variety of projects and are evaluated on statutory criteria of safety, environmental sustainability, quality of life, economic competitiveness and opportunity, state of good repair, partnership and innovation. New this year, under the BIL, 2022 RAISE applications will also be evaluated on the criteria of mobility, community connectivity and universal design and accessibility. In addition, under the BIL, RAISE expands the number of communities eligible for 100% federal share of funding, specifically those in rural communities, Areas of Persistent Poverty and Historically Disadvantaged Communities. See: https://www.transportation.gov/RAISEgrants	States; Tribal governments; counties, municipalities or other unit of local government; transit agencies and special purpose districts or public authority with a transportation function
USDOT	Reconnecting Communities Pilot Program (RCP)	The Bipartisan Infrastructure Law (BIL) established the new RCP discretionary grant program, funded with $1 billion over the next 5 years. Funding supports planning grants and capital construction grants, as well as technical assistance, to restore community connectivity through the removal, retrofit, mitigation, or replacement of eligible transportation infrastructure facilities. As part of the US's commitment to reaching netzero emissions economy-wide by 2050, applicants are encouraged to consider environmental justice, climate change, energy efficiency, sustainability, resilience, flood risk, and shifting trips to more affordable, safe, and less polluting modes. See: https://www.transportation.gov/grants/reconnecting-communities	State of Maine, Tribal governments, municipalities or other unit of local government, Metropolitan Planning Organizations, non-profit organizations

Agency	Program Title	About Program & AT-Related Information | Amount(s)	Recipient(s)/ Applicant(s)
Federal Highway Administration, USDOT	Recreational Trails Program (RTP)	The RTP provides funds to the States to develop and maintain recreational trails and trail-related facilities for both nonmotorized and motorized recreational trail uses. 30% of RTP funds allocated to the state shall be reserved for uses related to non-motorized trail recreation with the remaining 40% used for recreational projects that facilitate diverse trail use. In Maine the RTP is administered by the Department of Agriculture, Conservation and Forestry, Bureau of Parks and Lands. See: https://www.maine.gov/dacf/parks/grants/recreational_trails_program.shtml	Municipalities, other qualified sub-divisions of state government, and qualified non-profit organizations
Federal Highway Administration, USDOT	Safe Streets and Roads for All Program (SS4A)	The BIL established the new SS4A discretionary program with $5 billion in appropriated funds over the next 5 years. In fiscal year 2022, up to $1 billion is available. The SS4A program funds regional, local, and Tribal initiatives through grants to support planning, infrastructure, behavioral, and operational initiatives to prevent death and serious injury on roads and streets involving all roadway users, including pedestrians; bicyclists; public transportation, personal conveyance, and micromobility users; motorists; and commercial vehicle operators. The SS4A program provides funding for Action Plan Grants (for comprehensive safety action plans) and Implementation Grants. See: https://www.transportation.gov/grants/SS4A	County and municipal governments, Tribal governments, regional planning organizations
Northern Border Regional Commission (NBRC)	State Economic & Infrastructure Development Investment Program (SEID)	The NBRC is a partnership between the federal government and the States of Maine, New Hampshire, New York, and Vermont with a mission to fund economic development and infrastructure projects, including for pedestrian and bicycle transportation, in distressed counties. NBRC funded projects can be eligible for up to an 80% matching grant. Maximum awards of $350,000 (non-infrastructure) -$1,000,000 (construction of infrastructure). See: https://www.nbrc.gov/content/economic-infrastructure-development-investments	State, Tribal, county, municipal, and non-profit entities in Androscoggin, Aroostook, Franklin, Hancock, Kennebec, Knox, Oxford, Penobscot, Piscataquis, Somerset, Waldo, and Washington counties
Federal Highway Administration, USDOT	Surface Transportation Block Grant (STBG) Program	New under the BIL, states are required to set aside 10% of STBG funds for Transportation Alternatives. The STBG Program continues all prior STBG eligibilities and also adds new eligibilities related to AT: maintenance and restoration of existing recreational trails, and projects to enhance travel and tourism. See: https://www.fhwa.dot.gov/bipartisan-infrastructure-law/stbg.cfm	MaineDOT
Federal Highway Administration, USDOT	Transportation Alternatives (TA) Set-Aside	The BIL continues the TA set-aside from the STBG program, with an increase to 10% of the STBG alottment. This presents an opportunity to fund more small-scale but critically important multimodal transportation projects at both the state and local level, e.g., pedestrian and bicycle facilities, recreational trails, and safe routes to school efforts. The BIL expands the range of eligible applicants to include an MPO that represents an area with a population 200,000 or fewer; any nonprofit entity, and a State, at the request of another eligible entity. See: https://www.fhwa.dot.gov/bipartisan-infrastructure-law/ta.cfm	Municipalities; counties; Tribal governments; RPOs and MPOs <200k population; transit agencies; natural resource or public land agencies; school districts, local education agency or schools; non-profits

Agency	Program Title	About Program & AT-Related Information | Amount(s)	Recipient(s)/ Applicant(s)
Federal Lands Highway Program: jointly administered by the US Dept. of Interior - Bureau of Indian Affairs and USDOT - Federal Highway Administration	Tribal Transportation Program (TTP)	The mission of the FHWA Office of Tribal Transportation is to enhance the quality of life in Tribal communities by supporting the Tribes' delivery of transportation programs. The TTP is the largest program in the Office of Federal Lands Highway and received $465 million in FY 2016, with increases of $10 million per year to $505 million in FY 2020, as established by the FAST Act. The purpose of the TTP is to provide safe and adequate transportation and public road access to and within Tribal governments and lands, with a prime objective being to contribute to the economic development, self-determination, and employment of indigenous people. Maine tribal shares for FY 2022 were: Houlton Band of Maliseet Indians, $191,743.12; Passamaquoddy Tribe at Indian Township (Peskotomuhkati Motahkomikuk), $215,768.29; Passamaquoddy Tribe at Pleasant Point (Sipayik) $348,122.74; Penobscot Nation, $500,560.63; Mi'kmaq Nation, $74,588.57. See: https://highways.dot.gov/federal-lands/programs-tribal	Tribal governments (formula funding via MaineDOT)
National Park Service	Urban Park and Recreation Recovery (UPARR)	UPARR provides direct matching grants and technical assistance to eligible economically distressed urban communities to revitalize and improve recreation opportunities, specifically to: rehabilitate existing indoor and outdoor recreation facilities; demonstrate innovative ways to enhance park and recreation opportunities; and develop local Recovery Action Programs (RAP) to identify needs, priorities and strategies for revitalization of the total recreation system.	

Table 3 Regional, Tribal and Municipal Funding Sources for Active Transportation Improvements

Agency	Program Title or Strategy	About Program & AT-Related Information | Amount(s)	Recipient(s)/ Applicant(s)
Tribal Government or Municipality	Budgeting Strategies/ Capital Improvement Programs (CIP) and Projects	Many municipalities and tribal governments alot a portion of their yearly budget to sidewalk improvements and other bicycle and pedestrian infrastrucure maintenance and construction. Many of the roads that are improved through a budget and/or CIP also include shoulders and sidewalks that benefit pedestrians and bicyclists.	Community organizations and private citizen advocacy
Maine Department of Economic and Community Development	Community Development Block Grants (CDBG) - **Statewide**	AT improvements and/or programming are eligible under the following CDBG grant categories: Urgent Need Grant Program, Public Infrastructure Grant Program, Public Service Grant Program, Economic Development Program, and Technical Assistance Program. All units of general local government in Maine are eligible for State CDBG program funds. Eligible applicants, including counties may apply for CDBG assistance on behalf of the five Maine Tribal nations; Maine Tribes are not themselves eligible applicants. All CDBG funded activities must meet one of three National Objectives of the program: 1) benefit to low and moderate income persons; 2) prevention and elimination of blight conditions; or 3) meeting community development needs having a particular urgency. See: https://www.maine.gov/decd/community-development/cdbg-program	Municipalities, counties, local government entity on behalf of Maine tribal nations
Auburn, Bangor, Biddeford, Lewiston, Portland and all of Cumberland County (with the exception of Brunswick, Casco and Frye Island)	Community Development Block Grants (CDBG) - **Entitlement Communities**	Similar opportunities as CDBG statewide program (see above). For more information, contact specific municipal office and see municipal website for more information	Community organizations and private citizen advocacy
Municipalities	Local Bonding	Many communities have used bonding as a way to make significant improvements to the sidewalk networks. Most often, bicycle and pedestrian groups work with town leaders to bring a potential bond to the voters for approval.	Community organizations and private citizen advocacy
Maine Dept. of Economic and Community Development	Municipal Tax Increment Financing (TIF)	Maine TIF laws allow communities to capture incremental growth in property tax revenue, over a period of time, for reinvestment within the community. TIF revenues provide opportunities to fund local development projects, such as bicycle and pedestrian improvements within a district, and are great sources for local grant match. See: https://www.maine.gov/decd/business-development/tax-incentives-credit/municipal-tax-increment-financing	Municipalities
RPOs / MPOs	Varied planning and/or construction assistance opportunities	Various planning and/or construction grant opportunities and funding amounts. Contact local RPO or MPO for more information.	Municipalities

Table 4 Private Funding Options for Active Transportation Improvements

Agency	Program Title	About Program & AT-Related Information | Amount(s)	Recipient(s)/ Applicant(s)
AARP Maine	Community Challenge Grants	These annual grants fund quick-action projects that help communities become more livable in the long-term by improving public spaces, transportation, housing, civic engagement, coronavirus recovery, diversity and inclusion, and more. The grant program is open to 501(c)(3), 501(c)(4) and 501(c)(6) nonprofits and government entities. Grants can range from several hundred dollars for small, short-term activities to several thousand or tens of thousands for larger projects. Included in prioritized projects are those that deliver a range of transportation and mobility options that increase connectivity, walkability, bikeability, wayfinding, and access to transportation options. See: https://states.aarp.org/maine/aarp-maine-announces-grant-opportunity-for-quick-action-community-improvement-projects	Local governments and non-profit organizations
Maine Community Foundation	Conservation for All	The Conservation for All grant program invests in organizations and projects that create or facilitate access to and use of land and water, particularly for underserved populations. This means taking specific actions to increase opportunities for those who are not accessing or using the outdoors by, for example, reducing physical or economic barriers, increasing awareness, or creatively encouraging participation. Max Award: $15,000. See: https://www.mainecf.org/apply-for-a-grant/available-grants-deadlines/conservation-for-all/	Conservation and other community organizations
American Trails	The Trail Fund (TF)	The TF is a joint initiative of the Trails Move People Coalition, led by American Trails, to assist the trails community with funding to support maintenance of existing trails, research, and stewardship training needs. The grants are for work on motorized or nonmotorized trails/projects that are open to the public anywhere in the US. The amount of funding available and number of grants the fund can offer varies year by year, pending funding. See: https://www.americantrails.org/the-trail-fund	Tax-exempt organizations under Internal Revenue Code; federal, state, regional, and local government units; Tribal governments; school districts
Rails-to-Trails Conservancy	Trail Grants Program (TGP)	The TGP emphasizes strategic investments that support significant regional and community trail development goals. Grants are given across the country to advance trail projects as part of TrailNation™ networks (Maine communities are included in this) and along the preferred route of the Great American Rail-Trail™ (does not include Maine however). Recent grantees included three New Hampshire organizations as part of the larger inter-state New England Rail-Trail Network effort. See: https://www.railstotrails.org/our-work/grants/	Diverse entities

Appendix G: Pedestrian and Bicycle Safety Analysis

Safety Analysis Overview

The planning team collected and analyzed pedestrian and bicycle crash data over a ten-year period (2012-2021). The data provide a breakdown of crash severity, the proportion of fatal to non-fatal crashes, the lighting and weather conditions during the time of the crash, the reported cause of the crash, the roadway context, proximity to traffic signals, and the posted speed limits. The analysis will inform the *SATP*'s recommendations for MaineDOT to pursue safety countermeasures in the future.

Pedestrian Collisions, Injuries, and Fatalities

Looking at pedestrian and bicycle crashes from 2012 to 2021 from MaineDOT and the Bureau of Highway Safety (BHS), pedestrian collisions number 2542. Overall, for the state, pedestrian injuries have reduced over the past 10 years (from 12% in 2012 to 9% in 2021) with a 2-year decline in 2020-21. Fatal pedestrian crashes account for 5% (132) of crashes while severe injuries for pedestrians are at 18% (462). The most common pedestrian injury is a C level or "Possible Injury" at 43% (1089) followed by a B level at 31% (782). *See Table 1.*

Maine utilizes the "KABCO" scale for reporting pedestrian and bicycle crashes. This is FHWA's injury classification scale employed by all states and includes injury codes K, A B, C and O to define the level of injury sustained during a crash. Fatal crashes ("K") in 2015-2017 nearly doubled (ranging 12% -14%) in comparison to 2012 - 2014 crashes (6% - 8%). In a recent uptick, 2021 saw the number of pedestrian fatalities more than double, compared to 2020 (20 from 9). *See Figure 1.*

Table 1 Maine's Crashes Involving a Pedestrian by Year (Crash Count), 2012-2021

Pedestrian Crash by Year	K: Killed	A: Suspected Serious Injury	B: Suspected Minor Injury	C: Possible Injury	No Apparent Injury	Total Crashes	%
2012	9	68	93	111	14	295	12%
2013	11	36	87	105	7	246	10%
2014	9	56	78	122	5	270	11%
2015	19	44	73	132	10	278	11%
2016	17	43	58	128	6	252	10%
2017	19	50	73	110	11	263	10%
2018	6	52	79	106	8	251	10%
2019	16	47	95	117	3	279	11%
2020	8	33	60	84	6	191	8%
2021	17	34	86	74	7	217	9%
Total	**132**	**462**	**782**	**1089**	**77**	**2542**	100%
%	**5%**	**18%**	**31%**	**43%**	**3%**	**100%**	

Table 2 Maine's Pedestrian Injuries by Year (Person Count), 2012-2021

Pedestrian Crash by Year	K: Killed	A: Suspected Serious Injury	B: Suspected Minor Injury	C: Possible Injury	No Apparent Injury	Total Persons	%
2012	9	71	96	121	13	310	11%
2013	11	37	94	116	12	270	10%
2014	9	59	85	136	8	297	11%
2015	19	46	75	136	16	292	11%
2016	17	49	62	139	14	281	10%
2017	20	54	82	120	20	296	11%
2018	6	53	83	115	30	287	10%
2019	16	49	99	126	21	311	11%
2020	9	34	64	96	13	216	8%
2021	20	36	96	77	14	243	9%
Total	**137**	**487**	**836**	**1086**	**77**	**2803**	100%
%	**5%**	**17%**	**30%**	**39%**	**3%**	**100%**	

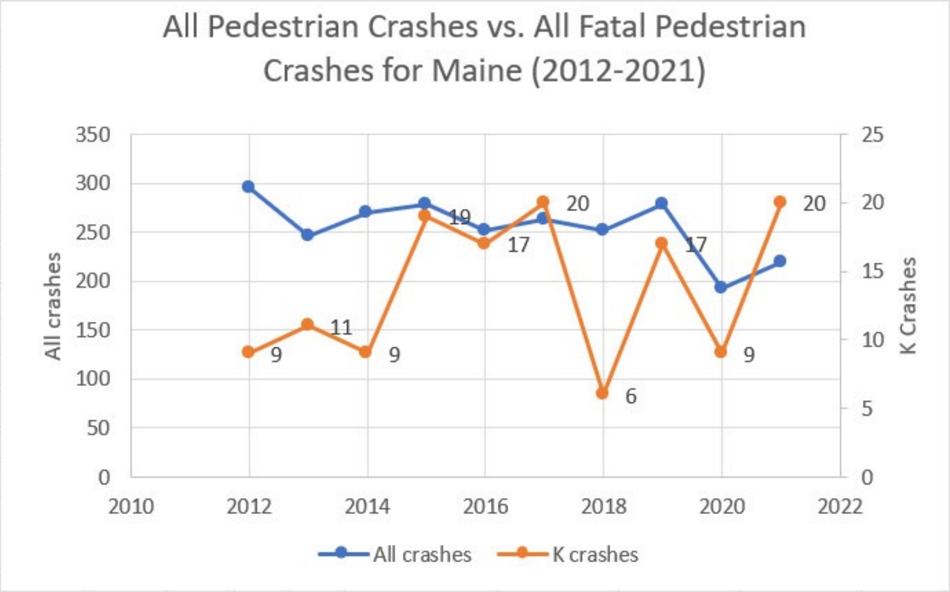


Figure 1 Comparison of Maine’s Overall Pedestrian Crashes to Fatalities, 2012-2021

Fatal crashes for Maine increased in 2021 compared to 2020, but they remained almost the same as that in 2015-17 and 2019. The data shows that the % of crashes increased in 2021 compared to all the previous years. *See Figure 2.*

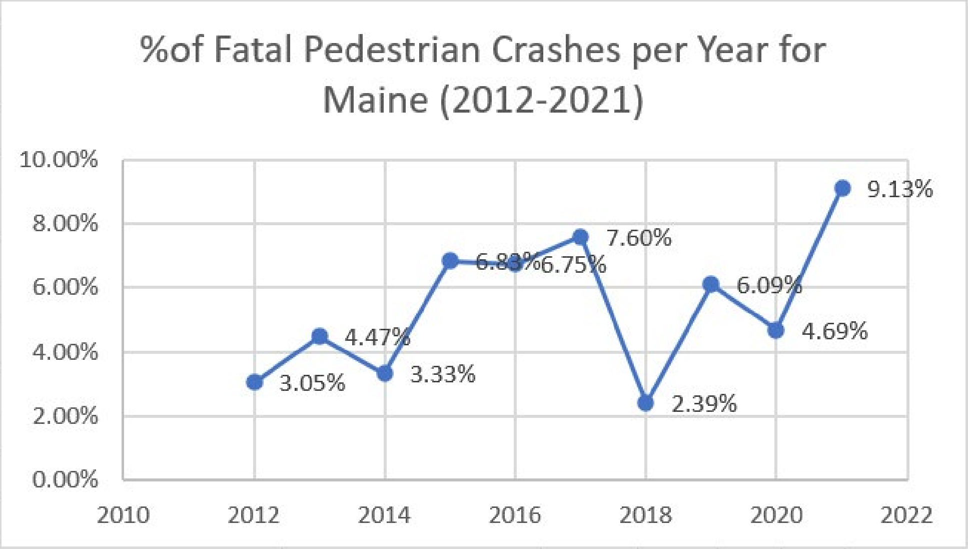


Figure 2 Maine's % of Fatal Pedestrian Crashes Per Year 2012-2021

Bicycle Collisions, Injuries, and Fatalities

For all 2012 to 2021 pedestrian and bicycle crash types reported, bicycle collisions accounted for 42% (1835 of 4374 pedestrian and bicycle crashes). Overall, for the state, bicycle injuries have reduced over past 10 years (from 11% in 2012 to 9% in 2021) with low of 7% injuries reported in 2020. Fatal bicyclist crashes account for 1% (21) of crashes while severe injuries are at 11% (209). The most common bicycle injury is a C level or “Possible Injury” at 43% (792) followed by a B level at 38% (699). *See Table 3.*

Looking at fatal crash trends, both 2013 and 2016 reported 19% of crashes (4 crashes for each year). Fatal crashes decreased from 4 fatalities to 2. After 2016, 2 fatal crashes occurred for five straight years. *See Table 3 and Figure 3.*

Table 3 Maine's Crashes Involving a Bicyclist by Year (Crash Count), 2012-2021

Bicycle Crash by Year	K: Killed	A: Suspected Serious Injury	B: Suspected Minor Injury	C: Possible Injury	No Apparent Injury	Total Crashes	%
2012	1	32	79	88	9	209	11%
2013	4	20	82	89	13	208	11%
2014	2	29	71	91	11	204	11%
2015	0	17	68	85	15	185	10%
2016	4	22	76	90	14	206	11%
2017	2	22	62	87	8	181	10%
2018	2	18	54	73	19	166	9%
2019	2	11	74	77	8	172	9%
2020	2	13	56	60	6	137	7%
2021	2	25	77	52	12	167	9%
Total	**21**	**209**	**699**	**792**	**115**	**1835**	**100%**
%	**1%**	**11%**	**38%**	**43%**	**6%**	**100%**	**-**

Table 4 Maine's Bicyclist Injuries by Year (Person Count), 2012-2021

Bicycle Crash by Year	K: Killed	A: Suspected Serious Injury	B: Suspected Minor Injury	C: Possible Injury	No Apparent Injury	Total Persons	%
2012	1	30	78	92	9	210	11%
2013	4	22	84	89	12	211	11%
2014	2	29	70	92	14	207	11%
2015	0	18	69	86	17	190	10%
2016	4	23	79	89	14	209	11%
2017	2	22	65	94	9	192	10%
2018	2	19	55	73	20	169	9%
2019	2	12	77	77	9	177	9%
2020	2	13	56	58	8	137	7%
2021	2	25	81	54	12	174	9%
Total	**21**	**213**	**714**	**804**	**124**	**1876**	**100%**
%	**1%**	**11%**	**38%**	**43%**	**7%**	**100%**	**-**

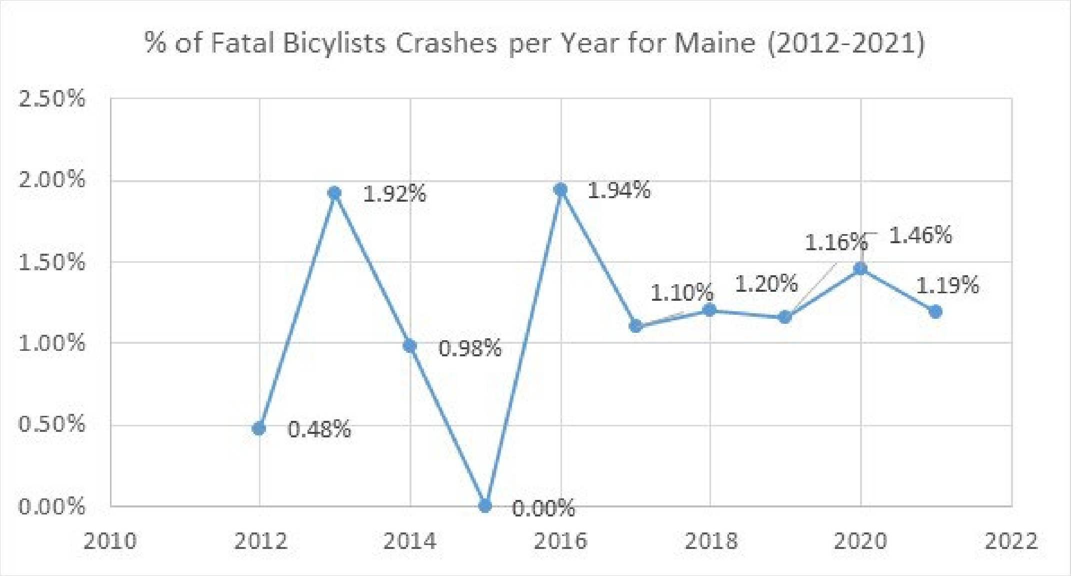


Figure 3 Maine's % of Fatal Bicycle Crashes Per Year 2012-2021

FARS Data Trends

a. **Maine ranking of # of vehicle crashes per 100 million vehicle miles traveled (2019):** In 2019, Maine reported 11.7 deaths per 100,000 people and 1.06 deaths per 100 million vehicle miles traveled. Maine is just below the national average for deaths per 100 million vehicle miles traveled (US reported 1.11 deaths in 2019). *See Table 5*.

Table 5 Maine ranking for number of vehicle crashes

State	Population	Vehicle miles traveled (millions)	Fatal crashes	Deaths	Deaths per 100,000 population	Deaths per 100 million vehicle miles traveled
Maine	1,344,212	14,871	143	157	11.7	1.06

Source: State by state (iihs.org), FARS Encyclopedia (dot.gov) – 2019

1 Population, fatal motor vehicle crashes, motor vehicle crash deaths and motor vehicle crash death rates per state, 2019

b. **Death By Roadway User:** Maine ranked above the total national % for fatal crashes for pick up/SUV (31% ME, 27% US) and motorcycle crashes (17% ME, 14% US), it matched the national average for car occupant crashes (34%).

Source: State by state (iihs.org), FARS Encyclopedia (dot.gov)

c. **Crash Type:** Maine had the highest percentage of deaths in single-vehicle crashes (68% - 106 out of 157).
Source: State by state (iihs.org), FARS Encyclopedia (dot.gov)

d. **Rural vs Urban Fatalities:** Maine ranked 6th in rural crash fatalities for 2019 (79%) and was significantly over national % (45%).
Source: State by state (iihs.org), FARS Encyclopedia (dot.gov)

Key Safety Analysis Trends

Bicycle and Pedestrian Crashes & Lighting and Weather Conditions

Looking at lighting conditions for bike and pedestrian crashes for Maine for 2012-2021, 69% (3027) of all crashes occurred in the Daylight and 17% (765) in Dark Lighted conditions. However, when looking at just fatalities (K), 38% (57) occur in Daylight and 34% (52) occur in Dark - Not Lighted conditions. *See Tables 6 and 7.*

Looking at strictly pedestrian fatalities (K), 38% (49) occur in Dark - Not Lighted conditions and 32% (41) occur in the Daylight. And when looking at just bicycle fatalities (K), 76% (16) occur in the Daylight and 14% (3) Dark - Not Lighted conditions.

Table 6 Lighting Conditions & Bicycle and Pedestrian Crash Injury, 2012-2021

Lighting Conditions	K: Killed	A: Suspected Serious Injury	B: Suspected Minor Injury	C: Possible Injury	No Apparent Injury	Total Crashes	%
Dark - Lighted	32	144	249	313	27	765	17%
Dark - Not Lighted	52	84	112	121	13	382	9%
Dark - Unknown Lighting	1	0	10	10	4	25	1%
Dawn	6	10	16	16	1	49	1%
Daylight	57	405	1054	1368	143	3027	69%
Dusk	3	28	39	50	4	124	3%
Unknown	0	0	2	0	0	2	0%
Total	**151**	**671**	**1482**	**1878**	**192**	**4374**	**100%**

Table 7 Lighting Conditions & Bicycle and Pedestrian Fatalities, 2012-2021

Lighting Conditions	K: Killed	%
Dark - Lighted	32	21%
Dark - Not Lighted	52	34%
Dark - Unknown Lighting	1	1%
Dawn	6	4%
Daylight	57	38%
Dusk	3	2%
Unknown	0	0%
Total	**151**	**100%**

Looking at weather conditions for bicycle and pedestrian crashes in Maine, 76% (3309) of all crashes occurred in Clear conditions and 13% (548) in Cloudy conditions. Looking at fatalities (K), 70% (105) occur in Clear conditions and 16% (24) in Cloudy conditions. *See Tables 8 and 9.*

Seventy-one percent (1802) of all pedestrian crashes occurred in the Clear conditions and 13% (325) in Cloudy conditions. When looking at fatalities (K), 67% (87) occur in Clear conditions and 17% (22) occur in Cloudy conditions. Eighty-two percent (1507) of all bicycle crashes occurred in the Clear conditions and 12% (223) in Cloudy conditions. When looking at just bicycle fatalities (K), 86% (18) occur in Clear conditions and 10% (2) occur in Cloudy conditions.

Table 8 Maine's Bicycle and Pedestrian Crashes & Weather Conditions, 2012-2021

Weather Conditions	K: Killed	A: Suspected Serious Injury	B: Suspected Minor Injury	C: Possible Injury	No Apparent Injury	Total Crashes	%
Blowing Snow	0	1	1	4	1	7	0%
Clear	105	509	1147	1403	145	3309	76%
Cloudy	24	75	187	242	20	548	13%
Fog, Smog, Smoke	2	4	3	13	0	22	1%
Other	0	0	3	3	1	7	0%
Rain	13	69	122	171	20	395	9%
Severe Crosswinds	0	0	1	1	0	2	0%
Sleet, Hail (Freezing Rain or Drizzle)	2	3	6	8	2	21	0%
Snow	5	10	12	33	3	63	1%
Total	**151**	**671**	**1482**	**1878**	**192**	4374	100%

Table 9 Maine's Bicycle and Pedestrian Fatalities & Weather Conditions, 2012-2021

Weather Conditions	K: Killed	%
Blowing Snow	0	0%
Clear	105	70%
Cloudy	24	16%
Fog, Smog, Smoke	2	1%
Other	0	0%
Rain	13	9%
Severe Crosswinds	0	0%
Sleet, Hail (Freezing Rain or Drizzle)	2	1%
Snow	5	3%
Total	**151**	**100%**

Pedestrian and Bicycle Crashes & Top Manner of Vehicle Collision

Drivers' "Failure to Yield to Right-of-Way" accounted for 22% (608 of 2705) of all pedestrian crashes when looking at the top reported manner of collision for vehicles from 2012-2021. Driver's Failure to Yield crashes also accounted for 17% (104 of 616) of all Fatal (K) and Severe Injury (A) crashes.

Driver's Failure to Yield to Right-of-Way accounted for 27% (499 of 1879) of all bicycle crashes when looking at the top reported manner of collision for vehicles from 2012-2021. Driver's Failure to Yield crashes also accounted for 25% (59 of 237) of all Fatal (K) and Severe Injury (A) crashes reported.

Pedestrian and Bicycle Crashes & Location of Crash

When looking at pedestrian injuries by location For Maine from 2012-2021, overall, 43% (1089) of all crashes are happening on "straight roads" and 24% (597) on four legged intersections. Looking strictly at Fatal (K) and Severe Injury (A) crashes, 57% occur on "straight roads" (335 of 592).

When looking at bicycle injuries by location for Maine from 2012-2021, overall, 28% (507) of all crashes are happening at three-leg intersections, 25% (467) at four-legged intersections, and 24% (434) at driveways. Looking strictly at Fatal (K) and Severe Injury (A) crashes, 30% crashes occur on "straight roads" (70 of 230).

Pedestrian and Bicycle Crashes & Proximity to Traffic Signals

Seventeen percent (17%) of pedestrian injuries (435) from 2012-2021 occurred at traffic signals (stop and go) while 12% (323) occurred at crossings with stop signs. Looking strictly at Fatal (K) and Severe Injury (A) crashes, 12% (73) of pedestrian crashes occurred at traffic signals (stop and go) and 8% (51) occurred at crossings with stop signs.

Sixteen percent (16%) of bicyclist injuries (287) from 2012-2021 occurred at traffic signals (stop and go) while 24% of bicycle injuries (421) occurred at crossings with stop signs. Looking strictly at Fatal (K) and Severe Injury (A) crashes, 23% (53) of bicycle crashes occurred at Stop Signs – Other and 12% (28) occurred at traffic signals (stop and go).

This data implies that while traffic signals and stop signs can provide opportunities for pedestrians and bicyclists to cross busy roadways, they are not without risk. High motorist speeds and errors in judgement from both sides lead to crashes, injuries, and in some cases, deaths of people walking and bicycling at intersections throughout Maine.

Maine Counties with Highest Pedestrian and Bicycle Crashes

Cumberland County, representing 22% of the population of Maine, had both the highest pedestrian and bicycle crash rates in the state from 2012-2021, 32% (823) for pedestrian crashes and 40% (732) for bicycle crashes. York County, with 16% of the population of Maine, ranked second at 14% (367) pedestrian crashes and 20% (366) for bicycle crashes. *See Tables 10 and 12*. Although Cumberland and York counties contain a significant share of the state's population and are also where many people walk and bike on a daily basis, the comparison of crash percentages to the percentage of the population for each county show a significant overrepresentation of crashes.

Regarding fatal crashes from 2012 to 2021, Cumberland County had the highest pedestrian crashes at 19% (25), while Oxford and York Counties had the highest reported bicycle crashes from 2012-2021 at 19% (4 each). Again, both counties show significant overrepresentation of crashes when compared to county population. *See Tables 11 and 13.*

Table 10 Pedestrian Crashes by County, 2012-2021

Pedestrian Crashes By County	County Pop. (2020 Census)	% of Maine Pop.	K: Killed	A: Suspected Serious Injury	B: Susp. Minor Injury	C: Poss. Injury	No Apparent Injury	Total Crashes	% of Crashes
Androscoggin	111,139	8%	15	45	68	159	22	309	12%
Aroostook	67,105	5%	3	24	28	29	0	84	3%
Cumberland	303,069	22%	25	146	271	363	18	823	32%
Franklin	29,456	2%	1	5	8	13	0	27	1%
Hancock	55,478	4%	11	18	35	28	0	92	4%
Kennebec	123,642	9%	11	25	47	102	12	197	8%
Knox	40,607	3%	5	16	14	23	1	59	2%
Lincoln	35,237	3%	2	6	8	6	3	25	1%
Oxford	57,777	4%	4	13	22	26	1	66	3%
Penobscot	152,199	11%	21	66	96	129	2	314	12%
Piscataquis	16,800	1%	2	4	3	2	0	11	0%
Sagadahoc	36,699	3%	3	10	30	12	0	55	2%
Somerset	50,477	4%	5	13	14	25	8	65	3%
Waldo	39,607	3%	2	3	10	11	0	26	1%
Washington	31,095	2%	5	5	6	2	0	18	1%
York	211,972	16%	15	63	123	156	10	367	14%
Total	**1,362,359**	**100%**	**130**	**462**	**783**	**1086**	**77**	**2538**	**100%**

Table 11 Pedestrian Fatalities by County, 2012-2021

Pedestrian Crashes By County	County Population (2020 Census)	% of Population	K: Killed	K: Killed %
Androscoggin	111,139	8%	15	12%
Aroostook	67,105	5%	3	2%
Cumberland	303,069	22%	25	19%
Franklin	29,456	2%	1	1%
Hancock	55,478	4%	11	8%
Kennebec	123,642	9%	11	8%
Knox	40,607	3%	5	4%
Lincoln	35,237	3%	2	2%
Oxford	57,777	4%	4	3%
Penobscot	152,199	11%	21	16%
Piscataquis	16,800	1%	2	2%
Sagadahoc	36,699	3%	3	2%
Somerset	50,477	4%	5	4%
Waldo	39,607	3%	2	2%
Washington	31,095	2%	5	4%
York	211,972	16%	15	12%
Total	**1,362,359**	**100%**	**130**	**100%**

Table 12 Bicycle Crashes by County, 2012-2021

Bicycle Crashes By County	County Population (2020 Census)	% of Maine Pop.	K: Killed	A: Susp. Serious Injury	B: Suspected Minor Injury	C: Possible Injury	No Apparent Injury	Total Crashes	% of Bicycle Crashes
Androscoggin	111,139	8%	1	20	58	74	13	166	9%
Aroostook	67,105	5%	0	5	18	13	2	38	2%
Cumberland	303,069	22%	3	71	267	338	53	732	40%
Franklin	29,456	2%	1	1	6	5	1	14	1%
Hancock	55,478	4%	0	5	16	10	0	31	2%
Kennebec	123,642	9%	2	13	44	55	12	126	7%
Knox	40,607	3%	0	6	7	15	0	28	2%
Lincoln	35,237	3%	3	2	10	7	2	24	1%
Oxford	57,777	4%	4	7	20	17	1	49	3%
Penobscot	152,199	11%	1	23	66	77	14	181	10%
Piscataquis	16,800	1%	0	1	0	1	0	2	0%
Sagadahoc	36,699	3%	0	4	12	11	0	27	1%
Somerset	50,477	4%	0	1	5	11	2	19	1%
Waldo	39,607	3%	1	9	6	7	1	24	1%
Washington	31,095	2%	1	2	3	3	0	9	0%
York	211,972	16%	4	39	161	148	14	366	20%
Total	**1,362,359**	**100%**	**21**	**209**	**699**	**792**	**115**	**1836**	**100%**

Table 13 Bicycle Fatalities & Severe Injuries by County, 2012-2021

Bicycle Crashes By County	County Population (2020 Census)	% of Maine Pop.	K: Killed	K: Killed %
Androscoggin	111,139	8%	1	5%
Aroostook	67,105	5%	0	0%
Cumberland	303,069	22%	3	14%
Franklin	29,456	2%	1	5%
Hancock	55,478	4%	0	0%
Kennebec	123,642	9%	2	10%
Knox	40,607	3%	0	0%
Lincoln	35,237	3%	3	14%
Oxford	57,777	4%	4	19%
Penobscot	152,199	11%	1	5%
Piscataquis	16,800	1%	0	0%
Sagadahoc	36,699	3%	0	0%
Somerset	50,477	4%	0	0%
Waldo	39,607	3%	1	5%
Washington	31,095	2%	1	5%
York	211,972	16%	4	19%
Total	**1,362,359**	**100%**	**21**	100%

Pedestrian and Bicycle Crashes & Posted Speed Limit

Looking at pedestrian crashes from Maine 2012-2021, 43% (601) of all crashes occurred in 20-25 MPH posted speed limits. Looking strictly at Fatalities (K) however, 33% (34) of fatal crashes occurred in 40 – 45 MPH posted speed limits.

From 2012-2021, 43% (342) of all bicyclist crashes in Maine occurred in 20-25 MPH posted speed limits. Looking strictly at Fatalities (K) however, 47% (9 out of 19, where posted speed was known) of fatal crashes occurred in posted speed limits 40-45 MPH.

Table 14 Pedestrian-Related Crashes and Posted Speed Limit, 2012-2021

Pedestrian Crashes & Posted Speed Limit	K: Killed	A: Suspected Serious Injury	B: Suspected Minor Injury	C: Possible Injury	No Apparent Injury	Grand Total	%
< 20 MPH	0	0	3	0	0	3	0%
20-25 MPH	13	109	180	286	13	601	43%
30 - 35 MPH	30	104	129	135	15	413	30%
40 - 45 MPH	34	58	81	91	11	277	20%
> 45 MPH	27	20	35	19	2	104	7%
No Speed listed	28	171	354	558	36	1147	NA
Total	**132**	**462**	**782**	**1089**	**77**	**2542**	**100%**

Table 15 Bicycle-Related Crashes and Posted Speed Limit, 2012-2021

Bicycle Crashes & Posted Speed Limit	K: Killed	A: Suspected Serious Injury	B: Suspected Minor Injury	C: Possible Injury	Property Damage	Grand Total	%
< 20 MPH	0	0	1	0	0	1	0%
20-25 MPH	2	28	143	141	28	342	43%
30 - 35 MPH	5	36	102	131	10	284	36%
40 - 45 MPH	9	29	37	50	2	127	16%
> 45 MPH	3	10	16	10	1	40	5%
No speed listed	2	106	400	459	74	1041	NA
Total	**21**	**209**	**699**	**791**	**115**	**1835**	**100%**

Safety Analysis Findings

The pedestrian and bicycle safety analysis highlights several key issues facing AT users in Maine:

- While the total number of fatal and serious injury crashes involving pedestrians and bicyclists has remained relatively stable over the past decade, total pedestrian fatalities have seen an upward trend.
- Intersections are the site of a significant percentage of injuries for pedestrians and bicyclists.
- Driver failure to yield right-of-way remains a significant factor in crashes—including fatal and serious injury crashes.
- A disproportionately high number of pedestrian and bicyclist fatalities occur on roads posted above 35 MPH—indicating that speed and separation are critical factors in reducing fatalities.